



A.C. 225

FEDERATION OF MALAYA

REPORT
OF THE
MEDICAL DEPARTMENT
FOR THE YEAR

1954

28 MARCH 1956

By
R. E. ANDERSON
B.Sc., M.B., Ch.B., D.P.H., D.T.M. & H.
Director of Medical Services

Price : \$2.50 or 5s. 10d.





"Government Copyright is Reserved

The approval of the Surveyor-General, Malaya is necessary before
any Survey Department map or portion thereof may be copied."

Survey Dept., Federation of Malaya No. 83 - 1953



FEDERATION OF MALAYA

REPORT

OF THE

MEDICAL DEPARTMENT

FOR THE YEAR

1954

By
R. E. ANDERSON
B.Sc., M.B., Ch.B., D.P.H., D.T.M. & H.
Director of Medical Services

KUALA LUMPUR
PRINTED AT THE GOVERNMENT PRESS BY G. A. SMITH,
GOVERNMENT PRINTER
1956

FOREWORD

28 MAR 1956

The general health of the population continues to show steady improvement. There has been a slight increase in the birth rate and a slight decrease in the death rate, with no change in the infant mortality rate.

The country has been kept free from any dangerous infectious diseases. There was an outbreak of severe gastro-enteritis in Perlis, Kelantan and Pahang which was riverine in distribution, and which seems undoubtedly to have been due to the drinking of sewage polluted river water. An investigating team, including a bacteriologist from the Institute for Medical Research, was unable to isolate a specific causal organism.

The incidence of malaria continues to fall, and this decrease is spread throughout all the States of the Federation, except Trengganu. There have been isolated areas where there has been an increase of the incidence of malaria, probably due to lapses in control.

Tuberculosis continues to be a major problem. No survey of the extent of the disease has so far being carried out. The number of cases admitted to hospital has increased, while there has been a small decrease in the death rate. The numbers treated as out-patients has considerably increased.

The opening of the Lady Templer Tuberculosis Hospital in 1955 will be of great value. This hospital is intended for the reception and treatment of curable cases and it is hoped to establish a thoracic surgical unit.

The expansion and development of Rural Health Services has been given high priority. It is hoped to open the Rural Health Training School at Jitra about the middle of 1955. This School will train six rural teams every six months and it is the teams trained at this school which will replace the St. John Ambulance and Red Cross teams.

Eight main centres are to be built in the first instance if and when money becomes available from Colonial Development and Welfare Funds. Each State in which one of these centres is built will be required to build four sub-centres around it. If this pilot scheme is a success the programme will be extended, as and when funds permit, throughout the entire Federation.

There has been little expansion of hospital accommodation during the year and there has been no replacement or renovation of obsolete wards.

It is however the shortage of out-patient facilities rather than the number of in-patient beds which is the more urgent concern.

Out-patient attendances have increased at every hospital and dispensary throughout the Federation, and are greater in number than can be dealt with by the medical staff available.

The two mental hospitals are both considered to be too big for easy administration. The shortage of staff in these hospitals militates against the adequate treatment of cases, and the absence of adequate trained personnel for the rehabilitation of patients reduces the numbers who could probably be made fit for discharge. Much is hoped of the report of Dr. MacKeith, W.H.O. Consultant on Community Mental Hospitals.

Nurse training continues to have high priority. There is however a shortage of qualified Sister tutors, and recruitment is proving difficult. The new student nurse hostel at Penang, to accommodate 250, is progressing.

New laboratories were opened at the Institute for Medical Research during the year by His Excellency the High Commissioner, Sir Gerald Templer, K.C.B. These laboratories house the virus research unit, which consists of two teams, American and British, working in the closest liaison.

An extensive Yaws campaign was started on the East Coast during the year. This campaign is sponsored by the World Health Organisation, by whom all the Penicillin is supplied free. It is making very satisfactory progress.

Severe floods occurred throughout the southern half of the Federation towards the end of the year, resulting in extensive damage and destruction to homes, crops and live-stock, and creating a grave risk of the development of intestinal disease, malaria, etc. It is a pleasure to record that no epidemic occurred and that deaths from drowning and from exposure were negligible.

The financial stringency which persisted throughout the year, and which appears likely to continue into 1955, has seriously hampered the proposed expansion of staff, buildings and equipment which the Department has clearly recognised are needed if the ever increasing commitments which the Department is requested and is expected to undertake are to be satisfactorily covered.

CONTENTS

	PAGE
FOREWORD	iii

PART I

(1) CLIMATE, AREA AND POPULATION	1
(2) ADMINISTRATION—	
Organisation	2
Expenditure	3
Staff	3
Legislation	4

PART II

PUBLIC HEALTH:

(1) VITAL STATISTICS—	—
Population	5
Births and Deaths	5
‘Natural Increase’	5
Infant Mortality	6
Maternal Mortality	6
Principal Causes of Death	6
(2) SPECIAL DISEASES—	
Malaria	6
Plague and Cholera	7
Smallpox	7
Tropical Typhus	8
Enteric Fever	8
Dysentery and Diarrhoea	9
Diphtheria	9
Cerebro-Spinal Meningitis	10
Poliomyelitis	10
Yaws	10
Pulmonary Tuberculosis	10
Tuberculosis Settlement, Pulau Jerejak	12
B.C.G. Campaign	12
Venereal Diseases	13

PART II—(*cont.*)

PUBLIC HEALTH—(*cont.*)

	PAGE
(3) NUTRITION—	
Nutrition	... ... ... ... ... ... 13
(4) ESTATES, MINES, RAILWAYS AND QUARANTINE—	
Health on Estates	... ... ... ... ... ... 13
Estate Hospitals	... ... ... ... ... ... 14
Estate Mortality Rates	... ... ... ... ... ... 14
Health on Mines	... ... ... ... ... ... 15
Railway Sanitation	... ... ... ... ... ... 15
Port Health Work	... ... ... ... ... ... 16
(5) RURAL HEALTH SERVICES—	
Rural Health Work	... ... ... ... ... ... 18

PART III

MATERNITY AND CHILD WELFARE—

Maternity and Child Welfare 19
-----------------------------	--

PART IV

HOSPITALS AND DISPENSARIES—

Government Hospitals	... ... ... ... ... ... 20
Summary of Hospital Accommodation	... ... ... ... ... ... 21
Notes on Conditions Treated	... ... ... ... ... ... 22
Racial Distribution of Hospital Admissions.	... ... ... ... ... ... 22
Out-Patients	... ... ... ... ... ... 23
Surgical Work	... ... ... ... ... ... 23
Ophthalmological Work	... ... ... ... ... ... 23
Radiological Work	... ... ... ... ... ... 23

PART V

TRAINING OF NURSES—

Training of Nurses	... ... ... ... ... ... 23
School of Nursing, Northern Region, Malaya	... ... ... ... ... ... 24
Nurses Hostel	... ... ... ... ... ... 25
Training of Assistant Nurses	... ... ... ... ... ... 25

PART VI

PAGE

DENTAL—

Dental Surgery	...	...	...	...	...	...	26
Dental Training School	...	...	...	...	...	...	26

PART VII

SPECIAL INSTITUTIONS:

INSTITUTE FOR MEDICAL RESEARCH—

General Description	...	...	...	...	...	...	27
Conference on Virus Diseases	...	...	...	...	...	...	28
Yellow Fever	...	...	...	...	...	...	28
Japanese B Encephalitis	...	...	...	...	...	...	28
Dengue	...	...	...	...	...	...	29
Influenza	...	...	...	...	...	...	29
Scrub Typhus	...	...	...	...	...	...	29
Filariasis	...	...	...	...	...	...	29
Malaria	...	...	...	...	...	...	30
Medical Zoology	...	...	...	...	...	...	31
Tuberculosis	...	...	...	...	...	...	31
Tropical Ulcers	...	...	...	...	...	...	31
Antibiotics	...	...	...	...	...	...	31
Food and Vitamin	...	...	...	...	...	...	32
Nutritional Anaemias	...	...	...	...	...	...	32
Health Education	...	...	...	...	...	...	33
Veterinary	...	...	...	...	...	...	33
Library	...	...	...	...	...	...	33
Routine	...	...	...	...	...	...	33

LEPER SETTLEMENTS—

Leper Settlement, Sungei Buloh	...	...	...	...	...	34
Leper Settlement, Pulau Jerejak	...	...	...	...	...	36

MENTAL INSTITUTIONS—

Central Mental Hospital, Tanjong Rambutan	...	...	...	...	37
Mental Hospital, Tampoi, Johore Bahru	...	...	...	...	39

MEDICAL STORES AND PHARMACEUTICAL LABORATORY—

Medical Stores, Kuala Lumpur	...	...	...	...	39
Medical Stores, Penang	...	...	...	...	40

ORTHOPAEDIC APPLIANCE CENTRE

APPENDICES

APPENDIX

Report of the Medical Council	...	...	...	...	A
Report of the Dental Board	...	...	...	...	B
Report of the Pharmacy Board	...	...	...	...	C
Report of the Nursing Board	...	...	...	...	D
Report of the Malaria Advisory Board	...	...	...	...	E

STATISTICAL TABLES

		PAGE
Table	1. Return of Diseases and Deaths: Hospital In-Patients	54
,,	1A. Statement of General, District and Maternity Hospitals	68
,,	2. Malaria (including clinical cases): Statement of Hospital Admissions by months and States/ Settlements	70
,,	2A. Malaria (Microscopically positive cases): Statement of Hospital Admissions by months and States/ Settlements	71
,,	3. Surgical Operations: Summary	72
,,	4. Ophthalmic Work: Summary	72
,,	5. Out-Patients: Summary for each State/ Settlement	73
,,	6. Return of Diseases: Out-Patients	75
,,	7. Return of Diseases: Travelling Dispensaries	88
,,	8. Dental Surgery: Summary of Work	101
,,	9. Laboratory Work: Microscopical Examination of Blood Films	102
,,	10. Laboratory Work: Microscopical Examination of Faeces for Worms	102
,,	11. Post Mortem Examinations	103
,,	12. Return of Venereal Diseases	104
,,	13. Child Welfare Centres—Summary	107
,,	14. Dispensaries—Summary	108

FEDERATION OF MALAYA

REPORT OF THE MEDICAL DEPARTMENT FOR THE YEAR 1954

PART I

(1)—CLIMATE, AREA AND POPULATION

1. CLIMATE.—The climate of Malaya is characterised by uniform temperature, high humidity and copious rainfall. The variation of temperature throughout the year is very small and the average temperature throughout the year ranges from 70° F to 87° F though at hill stations the temperature recorded is as far below as 36° F. The average annual rainfall is about 100 inches though there are great variations from place to place and year to year. Coastal districts, however, have their own peculiar rainy seasons.

2. AREA.—The territories comprising the Federation of Malaya are situated in the southern section of the Kra Peninsula between latitudes 1° and 7° North and longitudes 100° and 105° East. The Federation of Malaya covers an area rather more than twice the size of the Island of Ceylon and slightly larger than England without Wales. Four-fifths of the surface of the Federation of Malaya is covered by dense tropical jungle. The developed area is the Western coastal area, west of the high central chains of mountains rising over 7,000 feet. Here are the largest towns and the main tin-mining and rubber planting areas. The areas of the States and Settlements is shown below:

Kedah	...	...	...	3,648	sq. miles
Perlis	...	...	...	310	"
Penang and Province Wellesley	...	...	400	"	
Perak	...	...	7,980	"	
Selangor	...	...	3,160	"	
Negri Sembilan	...	...	2,580	"	
Malacca	...	...	640	"	
Johore	...	...	7,878	"	
Kelantan	...	...	5,870	"	
Trengganu	...	...	5,000	"	
Pahang	...	...	13,820	"	
Total Federation of Malaya				51,286	"

3. POPULATION.—The estimated mid-year population of the Federation of Malaya was 5,888,578 comprising Malaysians 2,893,650, Chinese 2,216,105, Indians and Pakistanis 691,431 and others 87,392. The total shows an increase of 182,626 over the mid-year figure for 1953.

By States and Settlements, the estimated mid-year population for the last three years is as follows:

States/ Settlements	Estimated Population mid-year 1952	Estimated Population mid-year 1953	Estimated Population mid-year 1954
Kedah	622,506	645,817	664,659
Perlis	78,506	80,815	82,976
Penang and Province Wellesley	495,069	512,432	527,770
Perak	1,076,454	1,116,532	1,152,342
Selangor	811,757	847,098	877,286
Negri Sembilan	307,767	321,386	333,875
Malacca	272,820	283,140	293,315
Johore	843,668	874,766	904,691
Kelantan	481,562	493,501	506,117
Trengganu	242,889	249,468	256,994
Pahang	273,449	280,997	288,553
Total Federation	5,506,447	5,705,952	5,888,578

(2) ADMINISTRATION

4. ORGANISATION.—The administrative organisation of the Medical and Health Department remained unchanged in 1954. Medical Headquarters, situated in Penang from July, 1949, returned to Kuala Lumpur on July, 1954, to a new office in Federal House.

The Director of Medical Services, with his Deputy and two Assistant Directors, is responsible to the Member for Health for all matters of policy, and to the Chief Secretary, through the Federation Establishment Officer, for Staff and personnel.

Medical Headquarters, however, controls directly certain functions such as Research, Stores, Special Diseases (Mental Diseases and Leprosy), Quarantine, Transfers, Promotions and Training of Staff and in addition is responsible for the functioning of the two large Federal Hospitals at Malacca and Penang.

Each State and Settlement is responsible for its own Medical and Health Services, but work is co-ordinated and planned with the assistance of Medical Headquarters which advises in accordance with the policy of the Member for Health.

Control of sanitation in the towns and villages over the Federation is in the hands of local authorities which, in the case of the largest towns, e.g., Penang, Kuala Lumpur and Malacca, are Municipal Councils, and in the case of other towns are Town Boards. Some of these are elected bodies, with an official chairman, others are appointed bodies, but in each case a health officer either employed independently by the Municipality or a member of the Medical Department advises the chairman on all health measures under his jurisdiction. In rural areas, the district health officer, in the absence of any local authority, advises the district officer on health problems.

The health of labour forces on estates and mines is under the care of Estate Medical Practitioners but the Government Health Department exercises supervision under the Labour Code. Most of the labour forces on estates have now been regrouped due to the activities of communist terrorists.

The staff employed throughout the Federation on public health work, exclusive of Municipalities, Town Boards and estates, which have their own health staff, is made up as follows:

Medical Officers of Health	...	...	...	36
Health Inspectors or Sanitary Inspectors	...	...	162	
Public Health Sisters	...	...	...	34
Public Health Nurses	...	...	...	98

5. EXPENDITURE ON MEDICAL AND HEALTH SERVICES.— During the year 1954 little or no expansion of the service was permitted as on account of the large drop in revenue and the continued cost of the emergency, it was found necessary to confine spending to that which had been permitted in previous years.

The estimated expenditure for the whole of the medical services by Government was in the region of \$56 million which is made up as follows:

	P.E. Annually Recurrent and Special	Capital non- recurrent	TOTAL	
			Amount \$	Per cent
Federal	...	16,901,800	18,224,700	32.1
State/ Settlement	34,327,856	4,210,600	38,538,456	67.9
Total	...	51,229,656	56,763,156	100.0

With a population of $5\frac{3}{4}$ million this amounts to about \$10 per capita per annum, whereas in England and Wales the cost under the National Health Service in 1953 amounted to £486,000,000 or £11 per head equal to \$93 per head of population.

The above amount of \$56 million does not take into account vast amounts expended by Public Works Department, Town Boards and Municipal Health agencies on projects relating to anti-malarial drainage and water supplies which covers a wide area. In addition a number of large estates run their own hospitals, undertake anti-malaria schemes and maintain their own medical practitioner service.

6. STAFF.—The staffing position of medical officers which was inadequate a few years ago improved greatly as a result of recruitment from India and abroad on contract basis.

With the setting up of the Promotions and Appointments Board during the year, no further expatriate officers will be recruited if a local officer is available. As a result, recruitment during the year was almost entirely confined, in the case of doctors at least, to the recruitment of locally domiciled persons, who had graduated either at the University of Malaya or at overseas Universities. Few expatriate staff were recruited and then only for

posts for which no locally domiciled person could be recruited, such as certain types of specialists and health officers.

It will be pleasing to note that almost all house doctors who had served their one year provisional registration period either in Singapore or in the Federation joined the service as full Medical Officers. During the first half of 1954 there were 32 house doctors working in the five approved hospitals, and during the second half year a further 32 were working.

At the end of the year the staffing position can be summarised as follows: Of the 95 Superscale Administrative and Specialist posts 66 were filled and 29 were vacant, while of the 255 Time-scale posts and 26 Leave Reserve, 153 were filled and 128 were vacant. Of the 128 vacant posts 103 were held by temporary officers on agreement and on month to month basis. Contracts of these temporary medical officers are now expiring or about to expire and the medical staffing position is again giving rise to anxiety, but it is hoped that the position will improve in course of time with newly qualified medical graduates from the University of Malaya.

The following re-organisation of staff was effected at the Medical Headquarters:

Dr. M. L. Bynoe, who was Assistant Director of Medical Services, was promoted as Deputy Director of Medical Services, Federation of Malaya, with effect from 15th January, 1954.

Dr. R. I. Mac Beth, Assistant Director of Medical Services, (Hospitals) relinquished duty with effect from 17th December, 1954 on transfer to Selangor as State Medical and Health Officer.

Dr. W. H. Jeffrey assumed duty as Assistant Director of Medical Services (Health) with effect from 5th June, 1954.

Dr. A. A. Cameron assumed duty as Assistant Director of Medical Services (Hospitals) with effect from 17th December, 1954.

Dr. Haji Abbas bin Haji Alias assumed duty in the post of Health Officer, Medical Headquarters, with effect from 1st November, 1954.

7. LEGISLATION.—During the year the “Registration of Midwives Ordinance, 1954 (No. 22 of 1954)” was the only major legislation passed. This Ordinance recognised two types of midwives—Division I and Division II. The Division I midwife is really the nurse midwife and the creation of this division was designed to obtain eventual reciprocity with midwives trained by the Central Midwives Board of the United Kingdom. The second division corresponds roughly with the Assistant Nurse, and training and registration will be on a State basis, for work in rural areas. A complicated series of regulations relating to training, registration, discipline etc., have been drawn up. The result of this will be that training schools for both Divisions of Midwives will be set up, both of which will be established in connection with domiciliary services, which now play a compulsory part in training.

In addition the following extensions to existing ordinances and regulations were passed during the year.

The Sale of Food and Drugs (Amendment) Regulations, 1954.

The Registration of Pharmacists (Amendment) Ordinance, 1954.

The Poisons (Sodium Arsenite) (Amendment) Ordinance, 1954.

PART II

PUBLIC HEALTH—(1) VITAL STATISTICS

8. Judging from the figures of vital statistics 1954 is considered a year of steady improvement in the general health of the population. There is an infinitesimal increase in the birth rate and also a slight decrease in the death rate. There is no change in the infantile mortality rate.

9. POPULATION.—The estimated population of the Federation at mid-year 1954, was 5,888,578. Of this total 3,057,788 were males and 2,830,790 were females. Details are given earlier in the report (paragraph 3).

10. BIRTHS AND DEATHS.—*Births.*—There were 257,844 live births in 1954 compared with 249,365 in the previous year.

The birth rate for all races for 1954 was 43.8 per 1,000 population as at mid-year 1954 which is slightly higher than the rate of 43.7 for 1953.

By races the birth rates were:

					1953 Rates
Malaysians	...	...	...	46.2	45.1
Chinese	...	...	...	41.1	42.1
Indians and Pakistanis	...	...	44.0	...	44.2
Others	...	...	32.7	...	32.5
All races	...	...	43.8	...	43.7

DEATHS.—Deaths registered in 1954 were 71,861 which is 1,066 more than recorded for 1953 (70,795). The death rate for all races was 12.2 per 1,000 population as at mid-year 1954. This is lower than the rate (12.4) for 1953. The death rates for 1947 to 1952 were 19.4, 16.2, 14.2, 15.8, 15.3 and 13.6 respectively.

The death rates by races were:

					1953 Rates
Malaysians	...	...	14.8 per 1,000	...	14.5
Chinese	...	9.6	„	...	10.2
Indians and Pakistanis	10.1	„	„	...	10.9
Others	...	9.1	„	...	9.6
All races	...	12.2	„	...	12.4

11. INCREASE OF POPULATION.—The births registered exceeded the deaths by 185,983, and therefore the natural increase amounted to 3.2 per cent of the estimated population. Corresponding figure for the year 1953 was 3.1. The natural growth of

the population, most probably, is proceeding at a rate which is not exceeded in any other country of the world.

12. INFANT MORTALITY.—The deaths of infants under one year numbered 21,429 out of 71,861 deaths of all ages. There were 257,844 live births and the infant mortality rate was 83 per 1,000 live births. The corresponding figures for 1953 were 20,796 under one year out of 70,795 with an infantile mortality rate of 83.

The racial distribution of infantile mortality is as follows (the corresponding figures for 1953 are shown in brackets):

Races	Infant Deaths	Births	Infant Mortality Rate
Malaysians ...	13,406 (12,448)	133,591 (126,479)	100 (98)
Chinese ...	5,363 (5,523)	90,996 (90,737)	59 (61)
Indians and Pakistanis	2,524 (2,713)	30,400 (29,433)	83 (92)
Others ...	136 (112)	2,857 (2,716)	47 (41)

The above table clearly indicates that there is an improvement in the proportion of infant deaths in the Chinese and Indians and Pakistanis whereas a slight increase is noted in the Malaysians and other races.

13. MATERNAL MORTALITY.—The number of maternal deaths registered was 1,227 for 257,844 births as compared with 1,176 for 249,365 births in 1953. This gave a maternal death rate of 4.8 per 1,000 births and the figure for 1953 was 4.7 per 1,000 births.

14. PRINCIPAL CAUSES OF DEATH.—There were 71,861 deaths recorded in the Federation of which 13,702 only were certified by medical practitioners and 5,730 were inspected after death by medical men. Therefore figures shown under "Principal causes of death" are expected to be far from accurate.

Principal causes of death are given below:

Fever of unknown origin	...	19,607	(16,735)
Infantile convulsions	...	11,317	(11,316)
Malaria (all forms)	...	940	(598)
Pulmonary Tuberculosis	...	1,642	(1,780)
Pneumonias	...	2,380	(2,563)
Violence	...	2,769	(2,668)

(Figures in brackets are for the year 1953)

PUBLIC HEALTH—(2) SPECIAL DISEASES

15. The main public health problems of the Federation of Malaya are the prevention of malaria, reduction in pulmonary tuberculosis, eradication of yaws, prevention of the major infectious diseases and the treatment of Leprosy and Mental Diseases. Enforcement of quarantine and improvement of the general standard of nutrition and health, especially the care of mothers and children, constitute an equally important part of the Health Services.

16. MALARIA.—The incidence of malaria has reached even lower levels than 1953. There was an all round decrease in every

State/Settlement except Trengganu which showed a slight increase.

There was a mild outbreak of malaria in Kuala Lumpur District early this year and during the latter part of the year the incidence of malaria in the Klang and Port Swettenham areas was also on the increase. The causes were probably due to the alteration in the daily work of anti-malarial gangs and to indiscriminate felling of trees by the inhabitants.

The number of cases admitted in Government and Estate Hospitals was 9,695 with 111 deaths compared with 12,716 cases and 163 deaths in 1953. Comparative figures are given in the table below:

Year	Admission to Government and Estate Hospitals	Deaths	Case Mortality Per cent
1947	22,281	736	3.3
1948	15,477	428	2.8
1949	14,663	315	2.1
1950	11,720	236	2.0
1951	15,960	244	1.5
1952	14,115	192	1.4
1953	12,716	163	1.3
1954	9,695	111	1.1

It is too early to assess the cause for this improvement but it is highly probable that the widespread use of paludrine and residual spraying of houses with DDT in New Villages and kampongs have played some part in the reduction of reported cases.

There is a tendency, however, for complacency to be engendered on account of the continued fall, with a relaxation of traditional preventive measures.

The number of malaria cases, positive as well as unspecified forms, treated in Government hospitals was 10,087. This shows a decrease of 2,875 cases when compared with the 1953 figure of 12,962. The distribution of types of malaria, diagnosed microscopically, was:

Sub-tertian	...	...	...	67.2	per cent
Benign tertian	...	...	...	29.7	"
Mixed	...	...	...	2.7	"
Quartan	...	...	...	0.4	"

17. PLAGUE AND CHOLERA.—There were no cases of plague recorded in 1954, but one imported case of cholera was notified among the deck passengers ex S.S. Santhia from Calcutta. The contacts and the infected person were transferred to the Quarantine Station, Pulau Jerejak for observation and treatment. No fresh cases occurred.

18. SMALLPOX.—Smallpox was totally absent in 1954.

During the year 250,422 vaccinations (155,007 primary, 95,415 secondary) were performed and out of these 36,618 were re-vaccinations for International Certificates.

19. TROPICAL TYPHUS.—The incidence of tropical typhus is gradually decreasing and the occurrence of cases is sporadic in nature. During the year 420 cases were reported and out of these 320 were scrub typhus and 100 urban typhus. There were only five deaths—giving a case mortality rate of 1.2 per cent as against 1.3 per cent in 1953.

The total number of cases and deaths from tropical typhus for the year are shown below:

State/Settlement	Number of Cases	Number of Deaths
Kedah	...	—
Perlis	...	2
Penang	...	3
Perak	...	46
Selangor	...	71
Negri Sembilan	...	49
Malacca	...	25
Johore	...	29
Kelantan	...	5
Trengganu	...	6
Pahang	...	75
Military Headquarters	109	—
Total	420	5

20. ENTERIC FEVER.—The total number of enteric fever cases reported in the Federation was 899 with 70 deaths as compared with 809 cases with 76 deaths in 1953. This disease is endemic in Malaya.

An outbreak of about 50 cases of enteric fever occurred in the town of Kuala Trengganu in the middle of the year, but the sources of infection could not be ascertained. The outbreak was brought under control and half the population of Kuala Trengganu were inoculated with T.A.B. Vaccine.

The mortality rate shows a very significant decline from 23 per cent in 1946 to 7.0 in 1954. Chloramphenicol is the drug of choice in the treatment of enteric fever.

A summary of cases and deaths is given below:

State/Settlement	Number of Cases	Number of Deaths
Kedah	35	2
Perlis	33	1
Penang	68	7
Perak	281	26
Selangor	85	8
Negri Sembilan	80	10
Malacca	45	2
Johore	58	5
Kelantan	30	5
Trengganu	131	2
Pahang	50	2
Military Headquarters	3	—
Total	899	70

21. DYSENTERY AND DIARRHOEA.—Dysentery and diarrhoea are not notifiable diseases. Hospital statistics show admissions as 8,061 with 998 deaths as against 7,277 with 852 deaths during the previous year. Gastro-enteritis of a relatively mild degree but of wide extent was introduced into Perlis and Kelantan from Thailand and dissemination occurred through primitive sanitation. There was also a minor outbreak in Chegar Perah, Pahang. Immediate steps were taken to bring the outbreaks under control.

The common clinical signs and symptoms were sudden onset of diarrhoea, copious watery stool with a yellowish tinge—10 to 20 motions within 24 hours; no blood or mucus; gripping abdominal pain with distressing bile-stained vomiting; rapid dehydration, sunken eyes with common muscular cramps involving the abdominal recti; suppression of urine during dehydration and the temperature sub-normal.

Clinically the disease looked like an infection with the El Tor vibrio, but the majority of cases were not ill enough nor does the death rate bear out such a diagnosis. No vibrios were isolated.

The epidemic was in itself not serious but mainly a nuisance and time consuming. It has, however, drawn attention to the need for improved sanitary measures.

22. DIPHTHERIA.—One thousand five hundred and thirty-five cases of diphtheria occurred throughout the Federation. The incidence was sporadic and there was no outbreak in any particular area but increased cases were reported in Penang, Perak, Selangor and Johore.

The table below shows the summary of cases and deaths recorded during the year:

State/Settlement		Number of Cases	Number of Deaths
Kedah	...	124	28
Perlis	...	5	2
Penang	...	206	34
Perak	...	425	84
Selangor	...	303	57
Negri Sembilan	...	81	25
Malacca	...	94	21
Johore	...	249	55
Kelantan	...	5	1
Trengganu	...	10	—
Pahang	...	32	11
Military Headquarters	...	1	—
Total	...	1,535	318

Immunization campaigns against diphtheria were carried out in most of the towns, villages and kampongs throughout the States/Settlements, but the number of children protected is still well below that required to affect materially the incidence of the disease.

23. CEREBRO-SPINAL MENINGITIS.—The incidence of Menigococcal Meningitis was again insignificant. There were only eight cases on record during the year and the number of deaths was two.

24. POLIOMYELITIS.—There was a slight decline in the incidence of Poliomyelitis. One hundred and twenty-eight cases were reported with eight deaths. The corresponding figures for 1953 were one hundred and thirty-three cases with thirteen deaths. There was no epidemic in any particular area, cases occurring sporadically.

The following table shows the total number of cases of poliomyelitis and deaths resulting thereof in 1954:

State/Settlement		Number of Cases	Number of Deaths
Kedah	...	...	3
Perlis	...	...	2
Penang	...	...	6
Perak	...	...	19
Selangor	...	...	42
Negri Sembilan	...	5	...
Malacca	...	...	17
Johore	...	...	13
Kelantan	...	...	2
Trengganu	...	...	2
Pahang	...	...	3
Military Headquarters	...	14	...
Total	...	128	8

25. YAWS.—As a result of a yaws survey conducted under the auspices of the World Health Organisation in Kelantan and Trengganu an anti-yaws campaign was inaugurated in April, 1954, under the control of a Health Officer who with a "Fellowship" had studied methods used in Indonesia, Thailand and the Philippines. It is hoped to eliminate yaws completely from these areas by injections of suitable doses of penicillin to every sufferer and contacts of yaws detected in the rural areas of these States. Satisfactory progress is being made and considerable areas of these States have been covered.

The following is a summary of work done up to the end of the year:

(a) Total estimated population covered	...	120,323
(b) Total population examined	...	94,831
(c) Total number of yaws cases diagnosed	...	24,633
(d) Total cases treated	...	23,795
(e) Total number of contacts treated	...	3,045

26. PULMONARY TUBERCULOSIS.—Tuberculosis is one of the most important medico-social diseases in the Federation. The increasing use of diagnostic X-ray facilities confirms the high incidence of this disease. Six thousand four hundred and fifty-one

cases were admitted to Government hospitals for pulmonary tuberculosis with 956 deaths as compared with 5,847 cases with 968 deaths.

It is difficult to ascertain to what extent this disease exists among the general population and how far it is really responsible for the deaths, as a high proportion of deaths outside of hospitals are not certified by medical practitioners. The total deaths from pulmonary tuberculosis registered with the Registrar-General of Births and Deaths were 1,642 as compared with 1,780 during the previous year.

Some 3,000 beds throughout the country are available for the treatment of tuberculosis, and the majority of these are in acute general hospitals. The problem in the hospital treatment of tuberculosis is to get rid of the chronic patient to make way for the acute. Chest clinics at the larger hospitals continue to review and treat, where necessary, discharged tuberculosis patients, as well as those under surveillance.

The importance of looking after dependants while the bread-winner is in hospital cannot be overstressed. Until he or she knows that the family will be cared for during the time in hospital, there is little prospect of persuading such a patient to come for treatment in the early state of the disease. To overcome this a scheme of financial aid for dependants of tuberculosis cases has been in force under the aegis of the Malayan Association for the Prevention of Tuberculosis which has received considerable sums of money from the Lotteries Board. The help given by this organisation is much appreciated by dependants, but funds in this direction are limited, and no real progress will be made in this all-important aspect of Tuberculosis Control until Social Security is introduced. It is further hoped that their efforts will be redoubled in providing sanatoria for the chronic and incurable cases who occupy hospital beds for a considerable period, thus hampering the admission of early and treatable cases.

The erection of the Lady Templer Hospital for tuberculosis is now proceeding on the outskirts of Kuala Lumpur. This hospital is expected to open in July, 1955, and it is hoped that better facilities for the treatment of the acute case by surgery or other means will be available. It is not a Government Hospital, but is being built and will be maintained from voluntary funds under a Board of Governors, of which the Director of Medical Services is an ex-officio member. This hospital will have a capacity of 250 beds when completed and will accept treatable cases of tuberculosis only. It will provide a modern centre with research facilities for the studying of the disease and its treatment.

27. The tuberculosis wards in the General Hospital, and the modern out-patient clinic at Malacca with its own X-ray department and laboratory continues to play an increasing part in the treatment of tuberculosis.

During 1954 four hundred and ten bronchoscopic examinations were carried out and it is now considered essential to bronchoscope any person with a persistent cough, loss of appetite,

lassitude, etc., although X-ray films and sputum culture are negative in the first instance.

Whenever possible known contacts are screened and any suspicious shadows checked by a film. During the year 229 contacts were screened of whom 25 showed abnormal shadows in the lungs. Altogether 3,593 fluoroscopic examinations were carried out.

Pneumoperitoneum with or without phrenic paralysis continues to give excellent results and it is undoubtedly the best form of collapse therapy at present available to enable a limited staff to help the greatest number of people. Not only does it bring about healing (in conjunction with antibiotics) but it has made it possible for many a far advanced case to become a "good chronic" and to lead a useful life. It is considered essential to use some form of collapse therapy as well as drugs except in a very minimal lesion, because it has been found that a high percentage of cases treated by drugs alone, relapse sooner or later.

During the year no new "miracle" drug appeared on the market and the use of Streptomycin, INAH and PAS has continued. Rather longer courses of the drugs are now being given than formerly since it has been definitely proven that by using combinations of these drugs, resistance does not arise.

28. TUBERCULOSIS SETTLEMENT, PULAU JEREJAK.—The Tuberculosis Settlement is situated in two separate camps on the western side of the island of Pulau Jerejak. A resident medical officer is in charge of the Settlement and another medical officer who is in charge of the Leper Camp does part time work here. The Tuberculosis Medical Officer attached to the General Hospital, Penang, pays weekly visits to the Settlement, reviews all the new cases, checks upon the progress of all old cases and advises as to the line of treatment.

Although there is accommodation for 600 patients it is not possible to make full use of the facilities due to shortage of water supply which in spite of the expenditure of a great deal of money in the past is still inadequate and necessitates the purchase of water during the dry season.

During the year 307 cases were admitted to the Settlement and 262 patients were discharged. The number of patients remaining at the end of the year was 385.

Diversional Therapy is undertaken by the British Red Cross Society and handicrafts are taught to patients.

29. B.C.G. CAMPAIGN.—The B.C.G. Campaign started in 1951 continues throughout the Federation. The campaign is mainly carried out in schools, infant welfare centres, out-patient departments attached to hospitals and also in certain rural areas. Response from the general public has been good. In 1954, 109, 129 persons were tuberculin-tested and of these 50,024 received B.C.G. Vaccinations. In addition 12,105 new born babies were also vaccinated.

30. VENEREAL DISEASES.—The incidence of venereal diseases is indicated in the following figures for new cases applying for treatment at Government Hospitals and Special Clinics in 1953 and 1954:

New cases		1953		1954
Syphilis	...	4,930	...	4,012
Gonorrhoea	...	5,135	...	5,285
Other Venereal Diseases	...	1,212	...	884
Total	...	11,277	...	10,181

As compared with the figures for the previous year the incidence of syphilis shows a further decrease, but the incidence of gonorrhoea shows a slight increase.

The increase in the number of gonorrhoea cases may be partly due to diagnosis on clinical appearance only (and not confirmed microscopically) whereby cases of non-specific urethritis are possibly included under gonorrhoea.

On the other hand it may be that now that more persons are aware of the efficacy of modern treatment, they are inclined to run venereal risks more freely. If this were so then the other venereal diseases should increase, *pari passu*, with the increase in gonorrhoea, but it is not the case.

A detailed Return of Venereal Diseases treated in Government hospitals and clinics, showing diagnosis and distribution by race and sex is included in the Appendix (Table 12).

PUBLIC HEALTH (3)—NUTRITION

31. The general nutritional standard of the people has remained at a fairly good level. Research on nutritional diseases and particularly of anaemias which are persistent in certain sections of the population has continued to occupy the attention of a team at the Institute for Medical Research.

A limited number of School Feeding Schemes are in progress in certain States/Settlements on the lines of the recent joint recommendations of the Special Federation Committee.

PUBLIC HEALTH (4)—ESTATES, MINES, RAILWAYS AND QUARANTINE

32. HEALTH ON ESTATES.—The health of the estate population has been generally satisfactory. There was no major outbreaks of any infectious disease and the incidence of malaria remained low. The majority of estates have made housing improvements during the course of their building programme. Improved diet of the labourers and better living conditions have been responsible for the comparatively low malnutrition amongst the estate population.

The closest collaboration has been maintained with the Labour Department to the mutual benefits of both Departments.

33. ESTATE HOSPITALS.—The following table is a summary of the provision made by employers for the treatment of sick labourers and their dependants on estates:

States/ Settlements	Number of Estate Hospitals	No. of Beds	All Diseases		Malaria	
			Adms.	Deaths	Adms.	Deaths
Kedah ...	13	1,195	19,547	231	1,654	4
Perlis ...	—	—	—	—	—	—
Penang ...	3	193	2,553	15	24	—
Perak ...	28	1,331	34,163	411	625	2
Selangor ...	28	1,169	20,530	401	495	8
N. Sembilan ...	17	709	9,434	136	428	3
Malacca ...	9	159	2,075	74	32	—
Johore ...	13	444	6,301	73	157	2
Kelantan ...	4	90	2,092	26	299	—
Trengganu ...	1	50	672	4	63	—
Pahang ...	4	173	2,403	52	94	—
Total ...	120	5,513	99,770	1,423	3,871	19

The following table is a summary of the statistics relating to mortality amongst labourers on estates:

	Population	All Diseases		Malaria	
		Deaths	Death rate per mille	Deaths	Death rate per mille
Labourers and Dependents:					
All Nationalities ...	460,527	2,854	6.2	31	0.07
Labourers only:					
All Nationalities ...	266,444	756	2.8	13	0.05
Labourers and Dependents:					
Indians ...	276,652	2,062	7.5	18	0.07
Labourers only:					
Indians ...	149,167	511	3.4	4	0.03

34. The low incidence of disease and the low mortality amongst labourers on estates is now taken as a matter of course. It is interesting to look back and examine the conditions that existed only 30 to 40 years ago. The table below shows the comparison:

ESTATE MORTALITY RATES

F.M.S.	Total Number of Estate Labourers	Deaths	Death rates per mille
1911 ...	143,614	9,040	62.9
1912 ...	171,968	7,054	41.02
1913 ...	182,937	5,592	29.6
1914 ...	176,226	4,635	26.3
1915 ...	169,100	2,839	16.78
1918 ...	213,425	9,081	42.55
(Influenza epidemic)			
1919 ...	216,573	3,384	16.16
1920 ...	235,156	4,367	18.57
1921 ...	175,649	3,195	18.19

Federation of Malaya		Total Number of Estate Labourers		Deaths		Death rates per mille
1949	...	351,968	...	940	...	2.7
1950	...	269,685	...	779	...	2.89
1951	...	258,953	...	1,292	...	4.99
1952	...	278,005	...	1,085	...	3.90
1953	...	268,812	...	812	...	3.02
1954	...	266,444	...	756	...	2.84

35. **HEALTH ON MINES.**—Labourers on most of the mines were required to live in re-grouped areas in accordance with the provisions of the Emergency Regulations. Inspection of these re-grouped areas was carried out and recommendations regarding sanitation were made to the authorities concerned.

The Pahang Consolidated Mines and the Bukit Besi Mines in Trengganu have their own hospitals fully equipped with adequate medical and nursing personnel. Backed by preventive health and anti-malarial measures the mining community has been healthy.

36. **RAILWAY SANITATION.**—The Health Department, Malayan Railway, is under the charge of a Health Officer, seconded from the Government Medical Service. It provides out-patient medical facilities for Railway staff and their dependants at places where State/Settlement Medical Department facilities are not readily available, namely at wayside stations and all the gang lines. It is also responsible for preventive measures against malaria throughout the railway system. The Health Officer advises the Railway Department on matters involving questions of public health.

The activities of the Department were confined largely to anti-malarial works on the Railway Reserve and on State and private lands adjoining thereto. Preventive measures adopted consist of oiling of drains by the spray and brush methods, disinsection of quarters with DDT, and prophylactic treatment of staff and their dependants, particularly permanent way and construction staff in outlying and isolated areas. The efficacy of these measures was controlled by frequent larval surveys held in conjunction with Anti-malarial Departments of Town Boards and Municipalities.

For larval, mosquito and insect control DDT Emulsion is used as a spray throughout the Railway. This larvicide is not a weed or grass-killer with the result that more labour man-days require to be employed in maintaining anti-malarial drains. At Padang Besar Anti-Malarial Oil is used for spraying the pond from which water is pumped for domestic use.

Local Town Boards and Municipalities provided anti-malarial oiling in 11 localities at a cost to the Railway of \$14,629 as compared with \$14,204 for 1953. During the year the Railway Administration approached various Municipalities and Town Boards to waive their charges for anti-malarial work done in Railway reserve on behalf of the Railway Administration. Consequent upon this, the Kuala Lumpur Municipality as from 1st May ceased to charge the Railway Department for anti-malarial work done in the Railway reserve in Kuala Lumpur.

Regular periodical inspections were made throughout the system by District Health Committees under the Chairmanship of the Health Officer. All housing areas and all gang lines, especially those at isolated places, were visited at least once in every four months. In addition to this, a Local Health Committee under the Chairmanship of the District Traffic Inspector visited all the main stations and thickly populated railway centres at shorter intervals. It has been possible to effect a slight improvement in the standard of hygiene and sanitation in some housing areas and gang lines during the year but much remains to be done in this connection.

Some defective wells were re-conditioned and new wells were made in some places where there were no other sources of water supply. In all cases, the water was sent for chemical and bacteriological analysis before the staff was allowed to make use of these wells.

Dispensaries, some working on a whole time basis under the charge of Hospital Assistants, were maintained at the following places: Alor Star, Prai, Ipoh, Kuala Lumpur, Sentul Works, Seremban, Gemas, Johore Bahru, Krai, Gua Musang and Chegar Perah (Construction Area). The number of attendances of railway staff and their dependants at these dispensaries was 89,341.

An outbreak of non-specific Gastro-enteritis occurred during July 1954 at Chegar Perah Construction Camp. The outbreak was fully investigated. There were no other cases of major infectious diseases during the year.

Altogether 9,744 passengers crossing the Thai Frontier at Padang Besar were vaccinated.

First Aid Equipment boxes on passenger trains were replenished immediately after use; those at stations and workshops were inspected each month and replenished as necessary.

First Aid Courses of instruction based on the St. John Ambulance Association authorised text book were attended by 219 employees of whom 72 passed the examination held on completion of the courses.

PART HEALTH WORK

37. Port health work and quarantine are Federal functions. These are particularly important because of the number of immigrant ships which arrive from infected ports in Asia. All deck passengers are medically examined on arrival and are then re-vaccinated and quarantined until the results of their re-vaccinations are available.

During the period under review one hundred and thirty-three immigrant ships from India, 71 from China and Hongkong, 10 pilgrim ships from Jeddah and 28 from other infected ports arrived carrying 60,752 saloon and deck passengers.

38. INFECTIOUS DISEASES ON SHIPS.—Ten cases of chicken-pox and eleven cases of measles were detected among the passengers during the routine examination of passengers on board.

On 6th April, 1954 the S.S. Santhia arrived with a case of cholera. The patient, a deck passenger from Calcutta together with all unberthed passengers landing here were sent to the Quarantine

Station for observation. There were no further cases and those quarantined were discharged after the prescribed period of quarantine.

39. OUTGOING PILGRIM SHIPS.—Five pilgrim ships left Penang consecutively on 12th, 28th May, 14th, 30th June and 17th July with a total of 5,404 pilgrims comprising of 5,096 adults and 308 minors.

All the pilgrims were vaccinated against smallpox and all, except the infants under one year, were inoculated against cholera. The pilgrims were checked during the embarkation and no one was rejected on account of being afflicted with any infectious or contagious disease. The International Certificates of the pilgrims were also examined and were found to be in order. The general condition of the pilgrims was very good.

40. INCOMING PILGRIM SHIPS.—Five pilgrim ships carrying a total of 5,244 pilgrims returned to Penang. Two births and fourteen deaths occurred during the voyages. The deaths were largely amongst the very old. Health conditions among the pilgrims were satisfactory and no cases of quarantine diseases were detected.

41. SUMMARY OF PORT HEALTH WORK.—

Number of visits of Inspection to ships	Total Passengers		Total Examined		Passengers		
	Cabin	Deck	Crew	Passengers	U	Q	R
Penang 242 ...	14,752	46,000 ...	26,972	60,752 ...	152	17,391	27,398
Port Swet- tenham 127 ...	4,378	13,317 ...	11,478	17,695 ...	—	—	17,606
Total 369 ...	19,130	59,317 ...	38,450	78,447 ...	152	17,391	45,004

U=Signed undertaking to report.

Q=Removed to Quarantine Station.

R=Remained in Ship.

42. VACCINATIONS AND INOCULATIONS.—During the year, 26,585 vaccinations and 10,655 inoculations were performed. 96 were primary vaccinations and 9,098 were revaccinations for purposes of International Certificates and admissions to schools. 17,391 revaccinations were performed at the Quarantine Station, Pulau Jerejak.

43. INSPECTION OF SHIPS.—Eighty-one ships were inspected for rats for the purposes of issuing Deratation Exemption Certificates. All except two were clean and certificates were issued.

44. INSPECTION OF AIRCRAFT.—A total of 271 planes were inspected during the year. Altogether a total of 1,041 crew and 1,970 passengers were examined but no case of dangerous infectious disease was detected among them.

45. INSPECTION OF WATER BOATS.—During the period three water samples were taken from Penang Harbour Board water boats for bacteriological examination and the results were satisfactory.

46. SAMPLING OF PRE-PACKED FOODS.—Due to acute shortage of staff it was not possible to carry out checks vigilantly on the sampling of pre-packed imported food. However, those few that

have been sampled complied with the requirements of the Sale of Food and Drugs Ordinance.

47. YELLOW FEVER CONTROL.—Aedes Aegypti survey was conducted (both larval and adult survey) at the Bayan Lepas Airport and the R.A.F. Airport at Butterworth. The Aedes Aegypti Index for the former is nil and for the latter is three per cent. The Aedes Aegypti Index for the port of Penang is eight per cent. In accordance with the Articles 38 and 81 of the International Sanitary Regulations the mosquito proofing of Camp I of the Infectious Hospital, Quarantine Station, Pulau Jerejak has been completed. Plans have also been completed for the building of the Direct Transit Area block at Bayan Lepas Airport.

PUBLIC HEALTH (5)—RURAL HEALTH SERVICES

48. The policy of Government has been to expand rural health services, and in the past years, to meet the needs of new villages and kampongs, there has been a somewhat haphazard expansion of health services throughout the rural areas. Dispensaries have been set up in new villages to meet the needs of concentrations of population which did not exist before. Travelling teams from the voluntary agencies such as the British Red Cross and St. John Ambulance have been covering parts of the country where no services had previously been given. Missions withdrawing from China before Communist advances came to Malaya, and by now are firmly established in these areas. The Government health services have expanded considerably, especially in midwifery and maternal and child welfare. The expansion, however, has not been controlled, and now that the period of consolidation has set in some overall plan has had to be devised to put these services on a sound basis.

For reasons of economy the relief teams are being gradually reduced but only at the speed at which the Government services can replace them. It will be readily realized that such services hurriedly set up because of the needs of the emergency would require co-ordination and rationalisation, so to this end a comprehensive rural health scheme to meet the needs of the country as a whole was formulated during the year. Briefly put, this scheme envisaged a rural midwife for every 2,000 persons, a sub-district health centre for every 10,000 and a district centre for every 50,000. The basic staff of a health centre whether district or sub-district would be a team of four consisting of an assistant nurse, a midwife, a dispenser and a sanitary overseer, while in each district centre in addition would be staff for supervisory duties, a doctor, a dentist, a health sister, a health nurse, a health inspector and a dental nurse. The basic staff would be trained as a team and for this purpose a Rural Health Training Centre with accommodation for six teams has already been set up in Jitra in Kedah, and with W.H.O. and UNICEF assistance will open in early 1955.

In the meantime from a capital grant to be obtained from Colonial Development and Welfare Funds eight rural health centres, in addition to the training centre in Kedah, are to be set up in eight different States, to serve as a pilot scheme for the more comprehensive scheme intended to cover the whole country. If the pilot scheme is a success, the complete scheme which will mean the completion of about 90 district centres, 360 sub-district centres, and 2,250 midwives quarters, will be launched to be completed in 25 years by a series of five year programmes.

The voluntary teams comprising the British Red Cross Society, St. John Ambulance Brigade and the Missionary Bodies which were brought here on agreement to render health services in the rural areas, particularly to the new villages and kampongs, have carried out a very commendable job by giving treatment to 650,000 people during the year.

PART III

MATERNITY AND CHILD WELFARE

49. This is a State Service, particulars of which will be found in the reports of individual States and Settlements.

There are about 100 main maternity and child welfare centres and 401 sub-centres functioning throughout the Federation. These clinics are under the general control and direction of the Health Officer and carry out their work through a Health Visitor and a staff of Health Nurses and midwives. The clinics are mainly advisory and the more serious cases are referred to dispensaries in hospitals for treatment but minor ailments still form a part of the duties of this clinic.

These clinics were well patronised but the shortage of staff and housing limited this most important public health work to the main towns and their environs.

Maternity and child health work is also carried out by the British Red Cross and St. John Relief Teams throughout new villages and rural areas.

The total number of deliveries carried out in the Government hospitals in 1954 was 46,692 and the total number of deaths was 385.

The attendances of mothers and children at the welfare centres amounted to 1,192,413 and 470,510 visits were paid to mothers and children in their homes.

With the enactment during the year of an ordinance to control the registration of midwives throughout the Federation, plans are being made for the training of midwives in domiciliary midwifery which will lead in the future to the provision of midwives trained specially in attendance of women in their own homes.

A tabulated statement of child welfare centres is given in the Appendix (Table 13).

PART IV

HOSPITALS AND DISPENSARIES

50. Hospitals and dispensaries are a State Service, and particulars of this service will be found in the Annual Reports of States and Settlements.

During the year 235,738 patients were admitted. This does not include the admissions to the Leper and Mental institutions which numbered 709 and 2,249 respectively. The daily average number of hospital in-patients was 10,446. The figures for the previous year were 233,286 admissions and a daily average of 10,435 in-patients.

Apart from the fact that a new hospital has been opened at Besut (Trengganu), there has been little expansion of hospital facilities during the year. Attendances, however at hospitals are still increasing, and this may be ascribed to the fact that with a slump fewer people are able to afford the attentions of private practitioners.

The hospitals maintained by Government in this country provide just over 20,000 beds of which nearly 13,000 are provided in some 71 hospitals and 7,000 in special institutions. In addition estates, missions and private bodies also provide more than 6,000 beds throughout the Federation and therefore the capacity is more than 3.2 beds per 1,000 population. From the above it will be noted that the overall expansion in capacity for in-patients is not urgent.

This does not apply generally over the whole country, for Kelantan, Trengganu and Perlis have only 0.9, 1.4 and 1.5 beds respectively per 1,000 persons compared with 3.2 for the Federation as a whole. Certain of the larger hospitals too are outmoded and are much below modern standards, and will at an early date require renovation or replacement. In certain areas too, such as the Municipal area of Kuala Lumpur, the hospitals neither in capacity or design meet the needs of that town's growing population. For that reason plans are being formulated to build an additional 500 bed hospital in Kuala Lumpur, and to renovate or rebuild the hospitals in Taiping, Ipoh and Seremban. With the increasing cost of hospital construction and the scale on which this is required in the Federation, the only hope of major rebuilding during the present period of financial stringency is that funds will be forthcoming from outside sources.

The specialist services have increased very considerably in the past few years, and in fact perhaps have increased beyond the means of the country to support them. On account of this, the department has under consideration plans for the regionalization of specialist facilities into six regions, North, North Central, Central, South Central, South and East, each representing areas of about one million people, and concentrated on six large hospitals (Penang, Ipoh, Kuala Lumpur, Malacca, Johore and Kuala Trengganu) in each of these areas.

Approval of such a scheme would probably mean that such hospitals would have to be run on a Federal basis (two at present

are) and they would provide specialist services for the region, and be fed by district hospitals which would treat the common ailments. Such a scheme would reduce the expense of specialist services by limiting them to some extent, to the hospitals in question.

The idea germinated in the approving of certain hospitals for the provisional registration of house doctors by the University of Malaya, and in view of the fact that the University will only recognise for this purpose hospitals which have considerably improved facilities, it is obvious that it would be too expensive to raise more than the largest hospitals in the country to this standard of specialisation. Such hospitals, too, would be used as a training ground for the future specialist and would provide him with facilities for experience which in the past he has had to seek abroad. In addition these hospitals would become training hospitals (house doctors, nurses, midwives, technicians) and would also be associated with regional laboratory facilities (pathological and public health) and with hospitals for special diseases (leprosy, tuberculosis, mental disease).

The Specialist Unit System with the employment of resident house doctors carrying out the statutory twelve months period before full registration as medical practitioners continues at the hospitals in Penang, Ipoh, Kuala Lumpur, Malacca and Johore Bahru. Modern Hostels each accommodating 10 or 12 house doctors have been built at Penang, Kuala Lumpur and Malacca Hospitals; one is nearing completion at Johore Bahru Hospital, and another will shortly be built at Ipoh Hospital.

51. A summary of the distribution of Government hospitals and beds is given below. A tabular statement of hospitals with daily averages, admissions and deaths is given in the Appendix (Table 1A).

SUMMARY OF HOSPITAL ACCOMMODATION

State/Settlement	Number and Category of Beds					Total
	General	Obstetrics	Tuberculosis	Infectious	Mental	
Kedah ...	700	78	222	20	13	1,033
Perlis ...	89	10	12	4	5	120
Penang ...	881	181	645	113	26	1,846
Perak ...	1,740	263	461	69	24	2,557
Selangor ...	1,190	182	274	42	20	1,708
N. Sembilan ...	723	134	360	29	17	1,263
Malacca ...	380	54	330	6	8	778
Johore ...	1,185	282	378	26	37	1,908
Keiantan...	310	27	66	—	35	438
Trengganu ...	192	23	81	14	6	316
Pahang ...	521	71	161	32	11	796
Total ...	7,911	1,305	2,990	355	202	12,763
Total excluding Special Institutions ...						12,763

SPECIAL INSTITUTIONS:

Leper Settlement, Sungei Buloh, Selangor	...	2,650	
,,	Pulau Jerejak, Penang	...	440
,,	Johore Bahru, Johore	...	350
Leper Camp, Kota Bharu, Kelantan	...	40	
			3,480
Mental Hospital, Tanjung Rambutan	...	3,000	
,,	Tampoi, Johore Bahru	...	1,200
			4,200
	Total—All Beds	...	20,443

NOTES ON CONDITIONS TREATED IN GOVERNMENT HOSPITALS

52. Full details are given in Table 1 of the Appendix. The following gives an indication of the commoner conditions treated in hospitals:

Diseases	Admissions	Deaths	Mortality per cent
Malaria*	10,087	133	1.32
Pulmonary Tuberculosis	6,451	956	14.82
Dysentery	2,079	66	3.17
Diarrhoea and enteritis	5,982	932	15.58
Pneumonias	4,560	1,212	26.58
Bronchitis	6,938	66	0.95
Beri-beri	587	45	7.67
Venereal Diseases	1,212	74	6.11
Enteric Fever	847	67	7.91
Injuries due to external causes	25,382	698	2.75

53. The following table shows the distribution of the common diseases in the three principal racial groups but this cannot be taken as a true indication of the racial distribution of disease. The proportion of Malaysians who are treated as in-patients in hospital is small in relation to other races.

The number of Indians is disproportionately high because they are employed by estates and other agencies, and the employers insist on sending them to hospitals for treatment whenever necessary.

RACIAL DISTRIBUTION OF HOSPITAL ADMISSIONS AND OF COMMON DISEASES

Races	Malaysians	Chinese	Indians and Pakistanis	Others
Population	2,893,650	2,216,105	691,431	87,392
Total admissions to Hospital	51,245	106,249	75,047	6,155
Diseases	Admissions	Admissions	Admissions	Admissions
Malaria*	4,226	30	2,499	63
Dysentery and Enteritis	1,976	124	3,381	587
Pulmonary Tuberculosis	1,432	108	3,697	666
Pneumonias	668	124	2,420	804
Beri-beri	185	6	247	29
Appendicitis	248	1	1,190	23
	Deaths	Deaths	Deaths	Deaths
	30	63	31	9

	124	587	276	194
	...	...	...	11
	108	2,510	165	105
	...	...	...	17
	6	150	9	106
	...	...	...	19
	23	487	2	5
	...	...	...	1
	1	70	—	—

* Includes other and unspecified forms of malaria.

54. **OUT-PATIENTS.**—All the hospitals have out-patient clinics. These are supplemented by static dispensaries situated in many of the towns. Treatment of rural population is carried out through travelling motor dispensaries. A certain amount of river travelling is also carried out in Johore, Pahang, Perak, Trengganu and Kelantan. Hospital Assistants in charge of static dispensaries travel by bicycle throughout their area to deal with places which the travelling motor dispensary cannot reach.

There has arisen since the war, and stimulated by the emergency and awakening civic consciousness, a real desire on the part of the people to have Western medical treatment. This has resulted in the out-patient departments of hospitals in the Federation becoming increasingly inadequate and it will be necessary to extend these facilities to meet the urgent demands placed upon them. To lessen the long periods of waiting which patients undergo at these out-patient departments at present, plans for modernised and improved out-patient departments of larger capacity are on hand in several of the States, but shortages of medical and ancillary personnel may hinder development in this direction.

The total number of attendances at all dispensaries for the year 1954 was 2,896,167. Out of these 783,363 attendances were at travelling dispensaries. This figure does not include attendances at Infant Welfare Centres and Venereal Disease Clinics.

Details of distribution of dispensaries and of the patients treated are given in the Appendix (Table 5).

55. **SURGICAL WORK.**—Seventy thousand five hundred and sixteen surgical operations, major and minor, were performed during the year: details are given in the Appendix (Table No. 3).

56. **OPHTHALMIC WORK.**—Sixty thousand six hundred and fifty-four patients were treated for diseases and injuries of the eye and 4,242 operations were performed. Details are given in Table 4 of the Appendix.

57. **RADIOLOGICAL WORK.**—Almost all the district and general hospitals are provided with efficient X'ray equipment.

X'ray examinations numbered 158,234 and 10,058 patients were treated in the X'ray and Electro-therapeutic departments.

PART V

TRAINING OF NURSES

58. One of the priorities has been the recruitment and training of nurses, and while recruitment is reasonably good in Penang and fair in Kuala Lumpur, it is with the utmost difficulty that recruits to the nursing service have been obtained in Johore. It was believed that two factors played a part in recruitment (*a*) good living and working conditions, and (*b*) rates of pay. Recruitment has improved in Singapore with the completion of a fine new nurses' hostel and rates of pay under the Ritson scheme have been improved. A similar hostel is under construction in

Penang for student nurses, and while it is hoped that this in itself will stimulate recruitment, proposals for new schemes of service which consolidated the value of emoluments in kind and added them to the salary, and the proposal to recruit male nurses on the same terms as females, met with considerable opposition and have not yet been approved. Proposals have been put forward during the year to confine the training of nurses to three complete training schools at Penang, Kuala Lumpur and Malacca or Johore Bahru so as to economise in tutorial and ward tutorial staff and to ensure a higher standard of training. These proposals envisage an output of 250 nurses per annum when fully working, and the schools which were proposed as Federal Schools would turn out a trained product for employment by States, Municipalities, estates, private practice, etc.

It is thought that the training of nurses should be carried on at the full capacity of the hostels provided at the schools of nursing irrespective of the number of fully trained nurses on the establishment, since in the nursing profession there are many "casualties" and there is little likelihood of saturation taking place for many years to come.

The training of local nurses (male and female) is now based on the new syllabus of the General Nursing Council of England and Wales. They attend the same courses in basic subjects but the male nurses are required to take subsequent training in special subjects such as dispensing and laboratory and in fact this training has already been launched and is popular with the men who are taking it. The course of training lasts three years and four months and the standards of training attained in the Malayan Nursing Schools allow of reciprocal recognition with the General Nursing Council of the United Kingdom.

Further, efforts are being made to provide training for nurses in such subjects as public health nursing and ward administration, and in fact a course which is being attended by some ten health nurses is being held in Penang and will lead to an examination of similar standard to that of the R.S.I. Health Visitor's Certificate. A course in ward administration is planned for 1955. It will still however be necessary for nurses who wish to become tutors to proceed abroad and also for training in other special subjects. It would be a pity, however, if all courses were eventually local, since the improvement in confidence, manner and bearing in those who have studied in the United Kingdom or Australia is very noticeable. It was for this reason that the offer of the Australian Government to train student nurses in Australia under the Colombo plan was eagerly accepted. The response to this offer has been very disappointing.

SCHOOL OF NURSING, NORTHERN REGION, PENANG

59. The total number of students attending the School of nursing, Northern Region, Malaya, during the year was 247, a decrease of 46 over the last year. This was due to lack of accommodation.

The courses given in 1954 were comprised of 2 Preliminary Courses with 79 pupils, 2 Block I Courses with 60 pupils and 3 Block II Courses with 89 pupils. The total number passing through the school were 104 nurses, 60 male nurses and one hospital assistant.

Lectures were given in accordance with the syllabus of the General Nursing Council of the United Kingdom. Students from the Preliminary Training School worked on the wards daily in the second month of training and for 24 hours each week in the third month of training. Practical cooking classes were also conducted for the benefit of these students by the Dietitian.

A post-graduate school of six weeks was held in August with 15 students (ten staff nurses and five hospital assistants) representing nine hospitals. The emphasis, in this course, was on Medicine, Medical Nursing and its allied subjects on Ward Administration, Supervision and Teaching. Surgical conditions were included where possible, as well as observation visits to the Operating Theatre and special lectures on Anæsthesia.

The special course in Laboratory Technique for male nurses commenced in June under the direction of the Senior Pathologist, Institute for Medical Research (Branch), Penang, and all the eight students were successful in their final term examination. They will start the Dispensing Course under the Superintending Pharmaceutical Chemist, Government Medical Stores, Penang, commencing in January, 1955.

The Health Visitors Certificate course commenced in September, 1954, and the students were keenly interested in the lectures on Health Services and in the visits to the Child Welfare Clinics, the Maternity Hospital, the Quarantine Station, Leprosarium and Tuberculosis Units on Pulau Jerejak. There is a great need for better understanding and closer liaison between the Hospital personnel and the Health workers outside the hospital.

The number of nurses who passed their final examination in General Nursing throughout the Federation in 1954 was one hundred and eleven.

60. **NURSES' HOSTEL.**—A large hostel to accommodate 250 student nurses, and built from Colonial Development and Welfare Funds, is nearing completion in Penang where a Nurses' Training School is to be erected in the near future. In addition new nurses' hostels to accommodate 40 nurses have been built at Seremban and Malacca, while another is building in Kuala Lumpur and building at Taiping is also about to commence.

New hostels for assistant nurses have been built or are building at Batu Gajah, Kuala Trengganu, Port Dickson, Kuantan, Bukit Mertajam and at Muar and Batu Pahat.

61. **TRAINING OF ASSISTANT NURSES.**—The role of the assistant nurse, who has now become established in the Federation hospitals, is becoming more important each year. They undergo a two-year course of practical training in the vernacular or in

English in hospitals where registrable nurses are not trained and are required to pass a local practical examination prior to completion of training.

To stimulate recruitment and esprit de corps among assistant nurses, amendments to the Registration of Nurses Ordinance are under consideration to permit their registration on a State basis and give them the title of State Enrolled Assistant Nurses and to recognise certain hospitals for their training. In most of these hospitals hostels of modern design are being provided and assistant nurses are becoming a permanent feature of the smaller hospital. It is proposed in the future to divert more and more assistant nurses to the health services in rural areas.

PART VI

DENTAL

62. STAFF.—At the end of the year the dental staff consisted of one Chief Dental Officer, forty-five Dental Officers, fourteen Dental Housemen, fifty-three Dental Nurses and twenty Dental Technicians.

When the dental housemen at present employed finish the prescribed year in this category, they will be appointed to the Dental Service. The existing establishment however bears no relationship to the dental needs of Malaya and is still inadequate to treat the 800,000 school children on the register.

63. NEW CENTRES AND CLINICS.—Trengganu expanded its dental facilities considerably during the year. A well equipped Dental Clinic was built and commenced treatment in Kuala Trengganu. A Dental Officer was posted to the Dungun-Kemaman area and a Mobile Dental Unit was supplied. Dental centres in Rural Health Clinics were opened in Simpang Ampat and Tassek Glugor in Province Wellesley. Further School Dental Clinics were inaugurated in Ipoh and Kuala Lumpur and a Mobile Dental Unit was supplied for use on the east coast of Johore. The number of Mobile Dental Units now operating is eight.

64. DENTAL NURSES TRAINING SCHOOL.—This institution continued to function in a most satisfactory manner. The teaching staff consisted of one Dental Officer, one Dental Nurse Tutor and four Dental Nurses. Dental Officers stationed in the area assisted training by lecturing.

Fourteen dental nurses graduated in the year. In addition to other work the pupils and staff of the school contributed substantially to the dental health of Penang by doing 11,198 fillings during 1954.

65. DENTAL TECHNICIANS TRAINING SCHOOL.—Two Probationer Dental Technicians completed training during the year. One was posted to Negri Sembilan and one to Trengganu.

The tutor at this school was awarded a scholarship for further study in facio-maxillary and orthodontic appliances. He is studying in Manchester University.

66. **GENERAL.**—One dental officer was successful in obtaining the Diploma in Public Dentistry at the University of St. Andrews; another obtained the Diploma in Orthodontics at Glasgow University.

Malaya was represented at the W.H.O. Dental Seminar held in Wellington, New Zealand by the Senior Dental Officer, Johore.

The Chief Dental Officer was appointed a Dental Consultant to the same seminar and also served in the same capacity on the W.H.O. Dental Planning Committee in Geneva.

There was a steady increase in the amount of work done. Attendances rose from 300,122 in 1953 to 363,310. The most satisfactory figure is that of teeth saved by filling. This rose from 122,632 amalgam fillings and 12,504 silicate fillings to 145,147 amalgam and 13,868 silicate. It is interesting to note that more than half the amalgam fillings were done by Dental Nurses.

A tabulated statement of Dental Work done in the various States/Settlements is given in the Appendix (Table 8).

PART VII

SPECIAL INSTITUTIONS

67. **INSTITUTE FOR MEDICAL RESEARCH.**—The Institute for Medical Research is a Federal Institution, administered as a branch of the Medical Department. Maintained by the Federation Government, with financial aid from the Governments of Singapore and North Borneo, it receives further support for special work from Colonial Development and Welfare Funds. The main buildings are in Kuala Lumpur, where the laboratories are organised on a divisional basis for bacteriology, biochemistry, pathology, entomology, malariology, nutrition, virus diseases, medical zoology and vaccine production, and there are branch laboratories in Perak, Penang, Negri Sembilan and Pahang. Founded in the year 1900 to investigate the diseases of Malaya, the Institute remains primarily a research institution, though a closer integration with the medical services over the years has brought responsibilities for the provision of routine pathological services and the manufacture of biological products.

68. New laboratories for the study of the diseases of Malaya which are caused by ultra-microscopic viruses have been built at the Institute for Medical Research in Kuala Lumpur. The formal opening of these laboratories in February, 1954, by His Excellency the High Commissioner, was a noteworthy event in the history of medical research in Malaya. Plans for the creation of a new research block in Kuala Lumpur were prepared in 1950, and finally accepted by the Federation Government and approved by the Legislative Council early in 1952. Construction began in July,

1952, and was essentially complete in June, 1953. The new buildings provide a group of laboratories with workshops, a new library, and a new lecture theatre; and they free space in the older buildings for a re-designed modern unit for the production of bacterial vaccines. The laboratories house the newly formed Division of Virus Diseases and Medical Zoology, and a research team from the U.S. Army Medical Service and Graduate School, Washington.

69. CONFERENCE ON VIRUS DISEASES.—A conference on virus diseases, sponsored by the Colonial Medical Research Committee, was held at the Institute in February, 1954. Attended by experts from Africa, India, Australia, Japan, America, and the United Kingdom, with Professor Buxton of the London School of Hygiene and Tropical Medicine in the Chair, the Conference reviewed broadly the problems of arthropodborne virus diseases in South East Asia, giving particular attention to the hazard of yellow fever. The recommendations made will be a valuable guide to the course of future work in this important field. The Conference took place in the Lecture Theatre of the new laboratory block, and in the afternoon of the last day, February 26th, the delegates to the Conference attended the official opening of the laboratories by His Excellency the High Commissioner.

70. YELLOW FEVER.—Yellow fever is not known to occur in South East Asia, although domestic mosquitoes which are efficient vectors elsewhere are common and widespread. The entry of the virus to this region from Africa or South America might have disastrous consequences. The risks have been recognised for the past twenty-five years, but the rapid development of international air traffic now gives them a new urgency. But local knowledge, from which the disease could be intelligently and efficiently combated should it gain by some tragic mischance an entry, is meagre; and the Colonial Medical Research Committee is actively supporting research on the complex problems involved. Early in the year, the Committee organised a conference in Kuala Lumpur; attended by virus experts from various countries, and approved the allocation of Colonial Development and Welfare funds for work in Malaya on yellow fever and other virus diseases. This work has now begun. Emergency methods of vaccination against yellow fever are being investigated, and a circular has been issued to assist health officers with plans for mass vaccination, should the need arise. Research is in progress on the mosquito carriers, and on the animals which might form a reservoir of the virus; and a Research Fellow in Entomology, Mr. W. W. Macdonald, has been appointed to study the distribution habits, and control, of the mosquitoes in Malaya which might be involved in the spread of the disease.

71. JAPANESE B ENCEPHALITIS.—The occurrence in Malaya of Japanese B encephalitis, suspected by Cruickshank in 1942, was proved in December, 1951, when an American research team working at the Institute isolated the virus from a fatal case in Kuala Lumpur. Since then, the disease has been closely studied at the University of Malaya and the Institute. Serious disease due to the Japanese B virus does not appear to be common in Malaya, but antibodies against the virus have been found in the blood of

a high proportion of the settled population, presumably a legacy of unrecognised infection in the past, and it is likely that the virus has a wide distribution. Antibodies have been found, moreover, in cattle and other animals. In Japan, the virus is carried to man by the common culicine mosquito, *C. tritaeniorhynchus*; and it is probable that in Malaya, too, the disease is carried by mosquitoes. On this assumption, American workers at the Institute have inoculated some 54,000 wild-caught culicine mosquitoes into mice in an attempt to recover the virus. The results suggest that *C. gelidus*, a common culicine mosquito in Malaya, may transmit the disease in the Kuala Lumpur area, a virus closely related to, if not identical with, Japanese B virus, having been recovered from batches of this mosquito on five occasions.

In March, at the generous invitation of the U.S. Army, the Senior Entomologist, Mr. Reid, paid a visit to the 46th American Army laboratory in Tokyo, to discuss the mosquito aspects of the disease. The exchange of views has proved to be extremely useful. An experienced American entomologist able to devote fulltime to the problems of mosquito transmission of the virus arrived in Kuala Lumpur in August; the work was greatly expanded, and before the end of the year positive evidence on the role in transmission of *C. gelidus* had been secured.

72. DENGUE.—Though the presence of dengue fever in Malaya has been known for many years, the virus has only recently been identified from local sources. An outbreak in January involving 21 out of 32 persons resident at the Methodist Girls School, Kuala Lumpur, has been studied. Dengue virus was isolated from three of these cases; but attempts to recover the virus from mosquitoes collected in the area during the epidemic were unsuccessful. No animal reservoir of the disease has yet been identified, but the general survey being undertaken in connection with yellow fever may be expected to yield information on this point.

73. INFLUENZA.—An influenza virus of the type A Prime was isolated from a member of the Institute's staff in February this year. At about the same time, outbreaks of influenza occurred on a number of rubber estates near Kuala Lumpur, including Seaport Estate where the U.S. Team have their controlled population study and where they isolated two more strains of the same type. These strains were all sent to the World Influenza Centre in London where their identity was confirmed.

74. SCRUB TYPHUS.—Studies on the identification of the vector mites have continued, and as part of a comprehensive survey, specimens have been received for examination from South Africa, the Belgian Congo, Japan and Australia. Strains of scrub-typhus infected mites have now been maintained in the laboratory for fourteen generations, over nearly seven years. Records of the occurrence of both scrub and urban typhus have been mapped for studies on the localisation of this disease.

75. FILARIASIS.—Intensive investigations into this crippling mosquito-borne disease are now in progress in Pahang, centred on the Institute's branch laboratory at Kuantan. This work is

aided by a research grant from Colonial Development and Welfare Funds. Filariasis is likely to prove more difficult to control than malaria, and the entomological staff are fully occupied in collecting the preliminary information required before control can be attempted. Large numbers of mosquitoes are being examined to determine their filarial infection rate, and to assess the risks of infection at different times and places. Among the Malays in kampongs at the mouth of the Pahang River the infection rates are very heavy. Night blood films, collected from nearly 4,000 men, women and children, have revealed an infection rate of 40 per cent, and 6 per cent had elephantiasis.

The control of filariasis in Pahang is likely to depend either on the destruction of the worms in the human host by drugs, or by the control of the vector mosquitoes by house-spraying with residual insecticides. The research problems are hence both clinical and entomological. Experiments are in progress to find the most suitable schedule of dosage for drug treatment of filariasis in kampung populations. The doses used hitherto, though suitable for hospital patients, are not practicable for use on a large scale. Infectivity experiments are also in progress to determine the smallest number of microfilariae in a patient's blood which will still infect mosquitoes readily. The success or failure of efforts to get rid of the disease by drug treatment of a population may depend largely on what this lower infective level proves to be.

76. MALARIA.—Research in malaria has been largely confined to the treatment of patients in hospital, the resources of the Malaria Research Division of the Institute having been partly diverted to the more complex and less understood problems of filariasis. The efficiency in acute malaria of the new drugs chloroquine and amodiaquine (Camoquine) have been confirmed; a single dose of either of these drugs has been shown to achieve a clinical cure in all but very heavy infections. The value of this single-dose treatment in dispensary practice is beyond doubt.

The spraying of houses with residual insecticides is playing an increasing part in the control of malaria throughout the rural areas. The returns of DDT spraying from States and Settlements have been analysed; in 1954, some 578,000 persons in rural areas were living in sprayed houses. A revised edition of the Malaria Advisory Board Circular No. 7, "Malaria Control by Modern Methods", has been published. This circular, based on the experience gained from the rural malaria control experiments in Negri Sembilan kampongs, supported from Colonial Welfare and Development Funds, is in considerable demand by health officers and town boards throughout Malaya.

The Second Asian Malaria Conference, organised by the World Health Organisation, was held in November, at Baguio, Republic of the Philippines. The Malayan Medical Services were represented by Dr. J. W. Field and Dr. T. Wilson of the Institute for Medical Research. This valuable conference, representing expert opinion throughout most of Asia and Oceania, brought into emphasis the remarkable extensions throughout these vast regions in malaria control by residual insecticides.

77. MEDICAL ZOOLOGY.—Studies of rats and other small mammals provide information basic to our understanding of such diseases as leptospirosis, scrub and urban typhus, and of rodent control. Basic studies on the length of life, carried on during the last six years, have been summarised during the year. Forest species are found to have an average length of about twice as long as that of the species from scrub and cultivated land which in turn live longer than house rats. Since the short-lived species breed quicker, this offers an immediate explanation of why it is that jungle forts, and similar places, are invaded not by forest rats, but by semi-domestic species which carry the more dangerous disease. A study of feeding habits shows that rats can persist in hospitable grassland, after food-crops have been discontinued, on a diet largely of termites.

A survey of the endoparasitic worms, conducted in collaboration with the Department of Parasitology of the University of Malaya, and studies on the persistence of leech infestation of forest and paddy field, have been continued. Laboratory experiments show that both land leeches and buffalo (Water) leeches, can live for at least five or six months without food.

78. TUBERCULOSIS.—The role of the germ of bovine tuberculosis as a cause of human disease in Malaya has long been undecided. The problem was revived during the year. The Division of Bacteriology has again reviewed the evidence and concluded that tubercle bacilli of bovine origin are not an important source of local infection.

Effluents from septic tanks of the type used in Malaya often show acid-fast organisms resembling the tubercle bacillus. Usually they are harmless saprophytes from soil; but one acid-fast organism, recovered from among 24 pseudo-positive hospital septic tank effluent samples, was found to be pathogenic to guinea-pigs and to correspond to *M. tuberculosis*. The problem is receiving further study in its relation to the public health.

79. TROPICAL ULCERS.—An outbreak of some 100 cases of tropical ulcer, mainly among children, occurred in June around the village of Nyalas in Malacca. A poor diet as a result of unemployment on the local rubber estates with a lowered resistance to an unknown infectious agent were the likely causes. Attempts were made by culture and animal inoculation to isolate such an agent from about 20 cases without success.

80. ANTIBIOTICS.—Work in this important field has taken two main lines—an appraisal of resistance to the known antibiotics in the common pathogenic bacteria, and a search for sources of new antibiotics in Malayan moulds of the genus *Streptomyces*. Many kinds of bacteria are now resistant to penicillin and, in varying degree, to other antibiotics. The Division of Bacteriology has attempted to assess the pattern and extent of this resistance. The findings emphasise how often the known antibiotics may fail, and how pressing is the need for continued research on possible alternatives. The soil of Malaya has a rich micro-flora, including many kinds of moulds known to produce substances which are

lethal to bacteria. Research on this potential source of new antibiotics is being continued. *Streptomyces* are isolated from local sources in pure culture, and then "screened" for their antibiotic activity against a standard range of bacteria. During 1954, some 4,000 strains were recovered from soil and other sources, and 56 strains were sent to antibiotic research stations in the United Kingdom for further study, a considerable effort which will be amply rewarded should any of them prove to be useful in the treatment of human disease.

81. FOOD AND VITAMIN.—Rice may be artificially enriched with vitamins and minerals, and the nutritive value of ordinary rice may be raised by the addition of this enriched rice in appropriate proportion. The term "Premix" has been applied to rice enriched in this manner. Two potentially valuable supplements are thiamin, and iron, the former to prevent beri-beri, the latter to prevent the common iron-deficiency anaemias. With the co-operation of the rubber planters, the estate doctors, and the Supplies Department of the Federation, a limited trial of rice enriched with these two substances is being made on twenty estates in Selangor. Ten estates are receiving supplies of rice enriched with "Premix" generously supplied without charge by Messrs Hoffman la Roche; for comparison the other ten are getting their normal supplies. The results will be assessed by the effects on the anaemias which are so common among estate labourers.

A survey of vitamin A and carotene levels in the blood of women attending an antenatal clinic established the fact that these levels lie within the accepted normal limits. On the other hand, a study of the thiamine levels in the breast milk of mothers with normal healthy infants, and of mothers whose infants are thought to be suffering from infantile beri-beri, has shown that the average level of thiamine is lower in Malayan women than in those from Western countries. During this investigation three clear-cut cases of infantile beri-beri were encountered but some sudden deaths in Gurkha infants seem to be unconnected with thiamine deficiency.

Samples of fish meals and fish flours from the United Kingdom and from America have been examined, and subjected to toxicity tests before and after storage; this work is part of a programme under which locally-produced fish meals will be prepared under the direction of the Fisheries Department. Such preparations, if acceptable in this country, would provide a valuable protein supplement for sections of the population most in need of such foods.

Estimations of the thiamine content of rice from various small local mills in two areas have been made at the request of Health Officers, who wish to guard against over-milling, while experiments are still in progress to establish a method of preparation of a palatable and attractive parboiled rice.

82. NUTRITIONAL ANAEMIAS.—Work on the nutritional anaemias of Malaya has involved the investigation and treatment of some 200 patients in the General Hospital, Kuala Lumpur.

Examinations confirm the almost universal incidence of iron deficiency, upon which other forms of anaemia are superimposed. The response of many of these patients to supposedly adequate treatment is often slow and incomplete. The reasons for this poor response are being investigated in more detail, and to this end the Colonial Welfare and Development Committee has made a substantial grant to the Institute for the purchase of electronic equipment for radioactive tracer studies.

83. **HEALTH EDUCATION.**—A considerable amount of attention has been paid to the important subject of health education and, whenever requests were received, talks and demonstrations on the principles of correct choice of food were arranged. Menus and diet scales, as well as explanatory leaflets, were prepared for several Government Departments and a close liaison was maintained with those education and labour authorities working in this important field.

84. **VETERINARY.**—Investigations on the blood of cattle maintained on experimental diets at the Central Animal Husbandry Station of the Veterinary Department helped to establish the fact that there is a seasonal variation in some blood constituents which could have an effect, not only on bone formation but also on breeding performance.

85. **LIBRARY.**—The exchange of periodicals continues. In March, a list of duplicate holdings was sent to the UNESCO Head Office in Paris, and also to the Library Association in London. Since then 54 libraries and institutions in various parts of the world have been provided with duplicate material; and some 800 single issues and 20 complete volumes have been received from other libraries. Nearly 4,000 duplicates were received in June from the Director of Medical Services, Federation of Malaya. They have been listed and made available through UNESCO to other medical libraries.

86. **ROUTINE.**—From its headquarters laboratories in Kuala Lumpur and branch laboratories in Perak and Penang, the Institute maintains a diagnostic and advisory service for the Federation of Malaya, and prepares some of the more important biological products. Some 1,236,370 doses of vaccine lymph, 31,500 c.c. of typhoid and 43,100 c.c. cholera vaccine and 14,010 c.c. of anti-rabies vaccine, prepared at the Institute, were issued without charge to the Medical and Health Services of the country; and 120,451 examinations, bacteriological, biochemical, entomological, histological, serological, etc., were made for the medical services and practitioners of the Federation.

An air-conditioned unit for the production of bacterial vaccines was completed early in the year. The new unit, designed to exclude bacterial contamination, provides a continuous filtration of air, extensive dust trapping, and sterilization by ultra-violet light of the main stratum of air over working tables. "Hot-cold" air conditioners produce incubator conditions within the room at the desired temperature (37°C), a useful feature when incubating the hundreds of culture flasks used in the production of large quantities of bacterial vaccines.

LEPER SETTLEMENTS

87. There are four Leper Settlements in the Federation—Sungei Buloh in Selangor, Pulau Jerejak in Penang, Leper Settlement, Johore Bahru and Leper Camp, Kota Bharu, Kelantan. At the end of the year the number of inmates remaining at these institutions was 3,297.

The numbers, despite the success of sulphone treatment, have not fallen, and though an increasing number of leprosy cases are being treated as out-patients there is need throughout the country for a survey as to the amount of leprosy which actually exists in order to plan a future programme for leprosy in this country. It is essential, however, that those conducting the survey must have a good knowledge of leprosy, and consideration is being given to giving the general duty medical officer a period of training in this disease in one or other of the leprosy settlements.

88. LEPER SETTLEMENT, SUNGEI BULOH.—Sungei Buloh Settlement is situated in a valley some 16 miles from Kuala Lumpur in attractive surroundings. Part of the Settlement is laid out as a hospital with wards for the treatment of the acute cases, and the rest is a village settlement consisting of small semi-detached houses with one room, a kitchen, a verandah and a bathroom. Married couples who have been admitted to the settlement are allowed to live together and a number of marriages takes place each year amongst the settlement inmates. About 40 to 50 infants are born each year in the settlement and these are removed as soon as possible to a crèche in the uninfected area where they are looked after till they are adopted or taken care of by the social welfare organisations.

The general health of the inmates has been good and there was no outbreak of any dangerous infectious disease but mild outbreaks of chicken-pox and mumps occurred.

During the year 525 cases were admitted to the settlement and some of these were discharged cases with trophic ulcers who returned only for short periods. The number of patients remaining at the end of the year was 2,401 and the distribution of the population is as follows:

Nationalities	Men	Women	Boys	Girls	Healthy Infants	Total
Malaysians	190	51	24	9	1	275
Chinese	1,137	510	129	76	19	1,871
Indians	200	22	8	3	—	233
Others	16	3	2	1	—	22
Total	1,543	586	163	89	20	2,401

Treatment.—The leprosy treatment has in general followed the lines of the last few years with Diaminodiphenyl Sulphone as the basic treatment for all cases. No new drugs have proved more efficient but work done in conjunction with Prof. Hale of the Department of Bacteriology, University of Malaya, Singapore, has shown that Sulphone in conjunction with isonicotinic hydrazide or thiosemicarbazones may be more active and shorten the period of treatment.

One of the great advances is that operation is possible on cases under treatment with sulphones with healing taking place as in normal tissue. Thus orthopaedic and plastic work are possible and deformities can be corrected before the patient is ready for discharge.

The discharges for 1954 were 440 as against 324 in 1953. This figure is likely to remain fairly constant on a population of 2,400. One inevitable though not unexpected result of sulphone therapy is the increase in the number of decrepit patients varying from the totally bed-ridden to those who can never earn their own living by reason of deformed hands and feet. Accommodation is gradually being blocked by these cases and in time will interfere with the admission of acute cases unless separate accommodation can be arranged.

Hospital.—During the year there were 1,726 admissions to the acute hospital of which 316 were new to the Settlement. These are always admitted first to the hospital for examination before going on to the quarters.

Fifty-three births and 35 deaths were recorded during the year. As usual the combination of leprosy and pulmonary tuberculosis accounted for most of the deaths.

Research.—Research has been very limited owing to Staff shortage but controlled clinical trials of drugs and combination of drugs have been carried out. Prof. Hale of the University of Malaya is collaborating.

Discharges.—Discharges and their after-care are an increasing problem. Arrangements are made with their nearest hospital or dispensary for them to continue sulphone injections, but a great deal depends on the patient himself and on his reception when he applies for follow-up treatment.

Work is found for all cases before they are discharged or they go to the Social Welfare Hostel till work is found.

In two cases this year gangs have gone out together on some project where they are housed and their treatment supervised.

Men are usually more easily placed than women. The Social Welfare Department helps these cases and also investigates all cases of hardship of dependants of inmates.

School.—The School of 250 children are shown good results. Two candidates took School Certificate and both passed, one with a Grade I Certificate.

Seven Certificates in London Chamber of Commerce Examination were obtained.

Scouts and Guides are popular and the Chief Scout Lord Rowallan visited them on the 12th November, 1954.

Workshop.—The workshop continues its good work and has added the training of a few apprentices who are keen and becoming useful. It covers a wide field from furniture making to adaptation of artificial limbs, maintenance of all vehicles and machinery within the Settlement.

Discipline.—There were no serious crimes during the year. A good deal of unrest has been stirred up by a few professional malcontents but the vast majority are contented and grateful for what is being done for them.

Absconding has become a rather popular sport and is chiefly affected by the high price of rubber.

Fire Fighting.—A new Land Rover Fire Engine was received from the Civil Defence Department. The Inmate Guards have been instructed in its use and are proving themselves efficient.

Farming.—Farming and vegetable growing occupies many people and the Settlement produces most of its own vegetables and eggs.

89. **LEPER SETTLEMENT, PULAU JEREJAK.**—This settlement is situated in the west side of Pulau Jerejak Island and the nearest point of access to Penang is about two miles from Sungai Nibong. No visitors are allowed except by permit and all non-infectious cases are occasionally granted permission to visit relatives.

The leprosy patients are housed in two camps with 131 semi-detached permanent huts. Each hut accommodates three patients and all married inmates are provided with separate huts. Babies born on the Island are immediately segregated and sent to the Maternity Hospital, Penang, and after six months they are transferred to the Social Welfare Department orphanage.

The total of cases remaining at the end of the year was 440 (males 388 and females 52) as against 430 during the corresponding year. The number of admissions during 1954 was 78, deaths 10, discharges 41 and patients absconding 4.

Gardening, poultry rearing and fishing are the main occupations of the inmates. Each community has its own club room where reading and indoor games are indulged in.

Rehabilitation.—The rehabilitation of bacteriologically negative cases from the Settlement by transfer to Jawi New Village is considered a great success. The reaction from the residents of the Jawi New Village was most favourable from the start and there was none of the usual fear and suspicion shown, although this had been expressed before the arrival in the village of these discharged patients, who have now settled into their new surroundings. This was made possible by the financial aid rendered by the British Red Cross Society and the Social Welfare Department.

MENTAL INSTITUTIONS

90. The mental disease of the country is dealt with in two mental hospitals at Tanjong Rambutan (3,000 beds) and Tampoi (1,200 beds) which are now becoming inadequate to deal with the problem, and in addition are now too big to be easily manageable. There is only one qualified alienist in the Federation, and one of the big difficulties in this sphere is to get sufficient doctors and necessary staff to staff the institutions. There is evidence that in mental hospitals, when the size exceeds 800 beds, the running of these hospitals becomes increasingly difficult, and for that reason

consideration has been given to the regionalization of mental hospitals as well. Dr. Stephen MacKeith, a W.H.O. Consultant on Community Mental hospitals, visited towards the end of the year to advise on this and related questions, and his report is awaited. The mental hospitals of the Federation fulfil the function of removing a person of antisocial behaviour from his community, but it cannot yet be said that any steps are being taken either to treat mental disease or to deal in a positive manner with mental health. It is believed that a partial remedy for this, if the staff can be found, is to have smaller but more mental hospitals which would offer out-patient treatment facilities and lessen the need for admission to mental hospitals.

91. CENTRAL MENTAL HOSPITAL, TANJONG RAMBUTAN.—The number of admissions for the year under review was 1,659 as compared with 1,928 for 1953.

As in previous years the proportion of Chinese admitted compared with the Chinese population of the Federation of Malaya is more than three times the comparable ratio for Malays. The reason for that is not a higher liability of Chinese to mental diseases but the fact that they are more concentrated in the urban industrial areas, where socially unacceptable behaviour is more readily noticed and dealt with.

There were 1,564 discharges of whom 974 were graded as recovered, 422 as relieved, and 168 as not improved. In view of the gross over-crowding and understaffing of this hospital, all patients except criminal patients are discharged freely and in many instances prematurely. Further if any relatives insist on taking a patient home against medical advice they are allowed to do so except in rare cases where the patient is either physically ill or severely disturbed. This policy naturally increases the number of readmissions but it is the only way in which we have been able to prevent the number from increasing beyond control.

The number of deaths was 181 as against 311 in 1953, and the death-rate was 3.5 per cent as against 5.9 per cent during the previous year. It is gratifying to note the decrease in the death rate and this marked improvement is being statistically studied to draw conclusions therefrom. Possible factors are:

- (a) Fewer patients moribund on admission;
- (b) Better diagnosis and treatment of tuberculosis, avitaminosis and organic syndromes;
- (c) Closer watch and care of patients in the chronic wards.

Deep Insulin and Electric Convulsive Therapy continued to be used with good result. Number of cases treated under

E.C.T.	...	...	...	1,064
D.I.T.	...	...	...	70

The use of E.C.T. in Malaya appears much simpler and safer than elsewhere. It is found that there is no need for muscle relaxants and anaesthetics and the incidence of fractures and dislocations was nil. Further no cases developed a marked aversion to the treatment. The explanation probably lies in the less

sophisticated and more trusting attitude of the Malayan mental patients of all classes.

Deep Insulin Therapy presents more of a problem. It is a technically difficult procedure demanding constant skilled supervision of the subject. The shortage of staff limits the number to about 20 cases undergoing treatment simultaneously.

Occupational therapy was carried out as in previous years, but due to the staff position only patients who are willing to work and who can be trusted with a fair amount of freedom are given work. There is still a vast untapped field where suitably trained staff could encourage the patient to work and, with close supervision and constant "rapport", could give him back the taste for work. Out of 2,439 males remaining at the end of the year only 857 are "occupied." With more staff a further 800 could probably be beneficially employed.

RETURN OF INMATES FOR THE YEAR 1954

SUMMARY OF NATIONALITIES

Nationalities	Remaining at end of 31-12-53	Admissions	Deaths	Total treated	Remaining at end of 31-12-54
Europeans ...	1	6	—	7	1
Eurasians ...	15	11	1	26	19
Chinese ...	2,179	834	118	3,013	2,291
Indians ...	474	388	22	862	535
Malays ...	777	414	40	1,191	838
Others ...	16	6	—	22	13
Total ...	3,462	1,659	181	5,121	3,697

Daily number of inmates for 1954 3,540

Number of beds 3,000

The cost of maintaining the Central Mental Hospital is indicated below:

(i) Personal Emoluments	...	...	\$1,484,878.00
(ii) O.C.A.R.	...	...	1,112,934.00
(iii) O.C.S.E.	...	...	26,472.00
Total ...	\$2,624,284.00		

Capital expenditure, pension and leave charges are not included. The net maintenance cost is \$741.33 per annum per patient treated.

Farms.—The number of patients working in the farms at the end of the year was 304 as compared with 287 in 1953. The farms were progressing satisfactorily except the pig farm where an outbreak of "Swine Erysepelas" occurred towards the end of the year.

92. **MENTAL HOSPITAL, TAMPOI.**—The number of admissions during 1954 was 590 as against 665 in 1953. There were 422 discharges and 42 deaths. The death rate was 2.95 per cent of the total of 1,426 patients treated. Nine hundred and sixty-two patients remained at the end of the year and the daily average was 898.

Five hundred and forty-six patients were treated by electric convulsive therapy and 50 by modified Insulin. Due to inadequate staff Deep Insulin treatment was not started. The other form of treatment was occupational therapy under which an average of about 319 patients were occupied in various forms.

MEDICAL STORES AND PHARMACEUTICAL LABORATORY

93. There are two large medical stores in Kuala Lumpur and Penang. The Stores account is operated under a "Below the Line" Account with a ceiling of \$12,000,000.

The Stores position in the Department is becoming steadily more acute. The greater needs of hospitals and rural health services coupled with the increased demands by the Federation Military Forces and the Police for drugs and equipment have demanded a re-organisation of the store-keeping methods.

The capacity of the Stores, however, is taxed to the limit, and a crisis may develop if the Department is required, as it has been requested, to vacate the Light Street Godown in Penang and the Batu Bulk Store in Selangor. Plans have been drawn up to provide for a centralised store in Selangor which would meet not only the needs of the Federation for some time to come but would provide improved manufacturing facilities which would save the Government considerable expense. Such a development, however, would be expensive in the beginning but its necessity cannot be denied, for even in the existing storage accommodation fire prevention is very difficult to carry out, and the necessity for better stores facilities is steadily obtruding itself upon the notice of the Department.

Two hundred and eighty-four indents were sent to the Crown Agents from both the Stores and the total value of these indents was \$3,762,477.61.

The Finance Section which embraces Government Medical Stores, Penang and Kuala Lumpur, and Central Dental Store, Penang, was further augmented during the second half of the year by the inclusion of the Artificial Limb Orthopaedic Appliance Centre, Kuala Lumpur, under its control for the purposes of recovery of charges for items supplied on Indents from all sources.

94. **MEDICAL STORES, KUALA LUMPUR.**—The value of drugs issued to the Kuala Lumpur Laboratory for manufacturing purposes was \$122,448.84 and the manufactured products were valued at \$173,438.22, making a profit of \$50,989.38 on the manufacturing account.

Over 316,209 ampoules were made as compared with 337,033 in 1953; 110,497 pounds of galenicals and 1,140,689 injectable doses were also produced during the period under review. The production of sulphone and sulphetrone preparations

for treatment of leprosy was 405,000 and 20,640 doses respectively. Further 65,450 ccs of B.C.G. Vaccine were issued in 1954 against 77,970 ccs in 1953.

Fire fighting apparatus was received from the Chief Inspector of Fire Services, Federation of Malaya, and was duly installed in the various stores and the Laboratory in Kuala Lumpur. Depending on the type of fire-risk the apparatus consisted of:

- C02 Water-filled extinguishers
- C02 Trigger Operated Extinguishers
- Double Foam Type Extinguishers
- Stirrup Pumps and Fire Buckets

A demonstration was given by the Chief Inspector of Fire Services on 16th September, 1954, indicating the type of fire for which each type of apparatus was to be used.

95. MEDICAL STORES, PENANG.—The Government Medical Store, Penang, has its godowns in widely scattered localities and, therefore, the efficiency is greatly handicapped.

In all, 33,848 pounds of galenicals, 3,045 ampoules, 14,527,000 tablets and 2,366 units of miscellaneous preparations were manufactured.

The value of ingredients and materials used in manufacturing was \$85,000 and the value of the output was \$122,000 so that the gross saving to Government was \$37,000.

NARCOTICS.—The Superintending Pharmaceutical Chemist remained the sole importer and wholesale distributor of narcotics and the system worked smoothly.

NARCOTICS STATISTICS

	1954	1953	1952
Consumption of medicinal opium as such	2 kg.	3 kg.	5 kg.
Consumption of opium in tinctures, etc.	32 ..	56 ..	12 ..
Consumption of Morphine	under 2 ..	nearly 3 ..	1 ..
Consumption of Diamorphine ... ...	.. 1 ..	under 1 ..	under 1 ..
Consumption of Cocaine ... ...	.. 2 ..	nearly 2 ..	1 ..
Consumption of Pethidine	8 ..	8 ..	5 ..
Consumption of Heptalgin	under 1 ..	under 1 ..	under 1 ..
Consumption of Phseptone	312 gm.	272 gm.	114 gm.

During the year, Government decided not to import any more Diamorphine and to discontinue its use in Malaya when present stocks are exhausted.

96. ORTHOPAEDIC APPLIANCE CENTRE.—The manufacture of artificial limbs and other appliances was undertaken by the Orthopaedic Appliance Centre. The work produced in 1954 included 48 fully articulated legs, 30 peg legs, 3 Symes legs, 11 artificial arms and various other orthopaedic appliances.

A new lathe machine was purchased at the end of the year and this would enable the Centre to produce larger and better appliances in future.

APPENDIX "A"

REPORT OF THE MEDICAL COUNCIL

The Medical Council consists of:

- (a) the Director of Medical Services, Federation of Malaya;
- (b) the Director of Medical Services, Colony of Singapore;
- (c) one medical officer in the public service of the Federation to be appointed by the High Commissioner;
- (d) one medical officer in the public service of the Colony to be nominated by the High Commissioner;
- (e) three registered medical practitioners to be nominated by the Council of the University of Malaya and appointed by the High Commissioner;
- (f) seven registered medical practitioners resident in the Federation to be elected by the registered medical practitioners resident in the Federation and five registered medical practitioners resident in the Colony to be elected by the registered medical practitioners resident in the Colony.

During the year only one meeting of the Medical Council was held on 20th March, 1954.

The Council confirmed the registration of those persons registered since the previous meeting, and also approved the removal from the register of the names of registered medical practitioners who were known to have been deceased or no longer practising medicine in the Federation. Among the various matters that came up for consideration the most important were the draft Medical Registration Regulations and the registration under Section 9 (1) (c) of the Medical Registration Ordinance of persons holding any other degree or diploma than those recognised by the General Medical Council of the United Kingdom as a qualification entitling the holder to be registered in the medical register of the United Kingdom of Great Britain and Northern Ireland. The draft Medical Registration Regulations drawn up by the Sub-Committee appointed by the Council were approved subject to certain amendments, and they were then submitted to the Attorney-General for scrutiny. Further amendments were suggested by the Attorney-General, and these were incorporated in a second draft to be submitted for consideration by the Council early in the new year. Four doctors employed by Missionary bodies for work in new villages had their registration approved under Section 9 (1) (c) of the Ordinance subject to the conditions that they work for the organisation which employs them, that they in no way engage in private practice as medical practitioners for their own personal gain and that the order authorising their registration is revocable at any time by the High Commissioner after consulting the Medical Council.

At the beginning of the year there were 674 medical practitioners on the register. Forty-nine were registered during the year and eight were transferred from Singapore bringing the total to 731. But during the year 22 were removed from the register so that the number on the register at the end of 1954 was 709. In addition there were on the register at the end of the year 33 medical graduates provisionally registered. They were engaged in employment in a resident medical capacity in the five approved hospitals in Penang, Ipoh, Kuala Lumpur, Malacca and Johore Bahru, and had to complete one year's satisfactory service as house doctors, i.e., six months in medicine and six months in surgery, before they could be granted full registration.

The distribution of registered medical practitioners by race and by State is shown on the following page.

REGISTERED MEDICAL PRACTITIONERS IN THE FEDERATION OF MALAYA
(As at 31st December, 1954)

APPENDIX "B"

REPORT OF THE DENTAL BOARD

The constitution of the Dental Board is as follows:

- (a) the Director of Medical Services, Federation of Malaya, *ex officio (Chairman)*;
- (b) the Director of Medical Services, Singapore, *ex officio*;
- (c) a Registered Dentist or a Medical Practitioner nominated by the Vice-Chancellor of the University of Malaya, and appointed by the High Commissioner;
- (d) the Professor of Dental Surgery, University of Malaya, Singapore;
- (e) the Chief Dental Officer, Federation of Malaya, *ex officio*;
- (f) the Chief Dental Officer, Singapore, *ex officio*;
- (g) two Dental Surgeons practising in the Federation of Malaya nominated by the Malayan Dental Association, to be appointed by the High Commissioner;
- (h) a Dental Surgeon practising in the Colony of Singapore nominated by the Malayan Dental Association, to be appointed by the High Commissioner;
- (i) a Registered Dentist in Division II nominated by the Central Malaya Chinese Dentists' Association, and appointed by the High Commissioner.

Membership.—During the year the Registration of Dentists Ordinance was amended to allow a representative of Dentists in Division II on the Register to sit on the Board. Mr. E. Chin Wah of Malacca was nominated by the Central Malaya Chinese Dentists' Association and after having been appointed by the High Commissioner joined the Board.

Board Activities.—The Board met three times during 1954.

Inspection of Premises.—Dental officers in Government service carried out inspections of premises used for the practice of dentistry by those registered in Division II. Inspections were carried out under State control. No State requested the removal of the name of any dentist for practising in unsuitable premises under Section 12 (2) of the Ordinance.

Illegal Practice and Covering.—Twenty-seven cases of illegal practice and four cases of covering were reported during the year. Prosecutions have been instituted or are pending.

Disciplinary Action.—The name of one dentist was removed from the register following a conviction for covering.

General.—The general standard of the practice of dentistry is rising in the Federation of Malaya, there being an additional 15 fully qualified dentists registered during the year and a decrease of 29 dentists registered under Division II.

DISTRIBUTION OF DENTISTS BY DIVISION, RACE AND EMPLOYMENT

DIVISION I

No. on register as at 1-1-54	...	...	77
No. registered during 1954	...	...	15
No. removed during 1954	...	...	Nil
Total on 31-12-54	...	92	

		In Government employ		In Private Practice
Europeans	...	7	...	2
Malays	...	9	...	Nil
Chinese	...	34	...	28
Indians	...	10	...	Nil
Others	...	2	...	Nil

DIVISION II

No. on register as at 1-1-54	...	...	552
No. registered during 1954	...	...	Nil
No. removed during 1954	...	...	29
Total on 31-12-54	...	523	

		In Government employ		In Private Practice
Chinese	...	1	...	518
Indians	...	Nil	...	2
Malays	...	Nil	...	2
Others	...	Nil	...	Nil

NUMBER REGISTERED BY STATES/SETTLEMENTS

		Division I	Division II
Perak	...	17	88
Selangor	...	17	95
Negri Sembilan	...	6	29
Pahang	...	5	27
Kedah	...	4	39
Kelantan	...	5	22
Trengganu	...	3	15
Penang	...	16	66
Malacca	...	4	29
Johore	...	13	100
Perlis	...	1	8
Singapore	...	1*	5*

* Registered in the Federation of Malaya, but practising in Singapore.

APPENDIX "C"

REPORT OF THE PHARMACY BOARD

The constitution of the Board is as follows:

- (a) the Member for Health, ex officio (*Chairman*);
- (b) the Director of Medical Services, Federation of Malaya, ex officio;
- (c) the Director of Medical Services, Singapore, ex officio;
- (d) one person nominated by the Vice-Chancellor of the University of Malaya, and appointed by the High Commissioner;
- (e) one pharmacist in the public service of the Federation to be appointed by the High Commissioner;
- (f) one pharmacist in the public service of the Colony to be appointed by the High Commissioner;
- (g) one representative from the Department of Chemistry, nominated by the Director of Chemistry and appointed by the High Commissioner;
- (h) two persons, not in the public service of the Federation or of the Colony of Singapore, nominated by the Association or Associations representing pharmacists in private practice and appointed by the High Commissioner.

On the retirement of Dr. W. J. Vickers from the Government Service, Dr. R. H. Bland replaced him on the Board. Mr. C. R. P. Strachan proceeded on home leave on 30th June, 1954, and Mr. A. H. Millard acted for him during his absence. Mr. D. E. Lovett proceeded on home leave on 6th February, 1954, and his place remained vacant until his return.

Five meetings were held during the year under review.

At the commencement of the year there were 48 Pharmacists on the register and 10 persons were registered as Pharmacists during the year bringing the total to 58 as on 31st December, 1954.

There were five registered bodies corporate at the beginning of the year and three new bodies were registered during the year bringing the total to eight at the end of the year.

Six persons appealed to the High Commissioner in Council against the decision of the Board not to register them as Pharmacists. Five appeals were allowed and the persons concerned were subsequently registered, but one appeal was disallowed by the High Commissioner in Council.

Section (6) (2) of the Registration of Pharmacists Ordinance, 1951, was amended to permit registration of certain persons who were not eligible to be registered under the original Ordinance, provided their applications were received for registration as Pharmacists under Section (6) (2) of the amended Ordinance. It is expected that these will receive the consideration of the Board early in 1955.

The distribution of registered pharmacists by race and State/ Settlement is shown below:

DISTRIBUTION OF PHARMACISTS

Number of registered Pharmacists on the register as on 1-1-54 ...	...	...	...	...	...	48
Number registered during 1954	...	...	...	...	...	10
					Total	...

Number of registered Pharmacists by races:

Chinese	...	...	...	...	...	38
Europeans	...	...	...	...	...	12
Indians	...	...	...	...	...	4
Ceylonese	...	...	...	...	...	4
					Total	...

Number of registered Pharmacists in Government Service 19*

Number of registered Pharmacists in Private Firms	39
Number admitted under Section (6) (2)	13

Number of registered Pharmacists in each State/ Settlement:

Perak	...	...	...	...	...	9
Selangor	...	...	...	...	...	19
Negri Sembilan	...	...	...	...	...	1
Penang	...	...	...	...	...	21
Malacca	...	...	...	...	...	2
Johore	...	...	...	...	...	5
Kelantan	...	...	...	...	...	1
					Total	...

Number registered as Bodies Corporate 8

Number registered as Bodies Corporate by races:

Europeans	...	...	...	...	...	2
Chinese	...	...	...	...	...	5
Indian	...	...	...	...	...	1
					Total	...

* Out of these, 14 are holding posts of Pharmacists.

APPENDIX "D"

REPORT OF THE NURSING BOARD

The constitution of the Nursing Board is as follows:

- (a) four ex officio members who shall be—
 - (i) the Director of Medical Services, Federation of Malaya;
 - (ii) a medical officer in the Government service, nominated by the Director of Medical Services;
 - (iii) the Principal Matron, Federation of Malaya;
 - (iv) a Sister Tutor nominated by the Principal Matron;
- (b) three persons not connected with the nursing profession to be appointed by the High Commissioner; and
- (c) eleven registered nurses to be appointed by the High Commissioner, one of whom shall be a registered male nurse.

One of the functions of the Nursing Board has been the registering of nurses who qualify under the conditions of the Nurses' Registration Ordinance, 1950.

In the main these nurses are mostly in Government Service though quite a number of them are missionary workers. The number of private nurses is insignificant as can be seen in the statement published on page 49.

The Nursing Board held one meeting during the year.

The Nurses' Registration Ordinance, 1950, is in the course of being amended at present to allow of the following:

- (i) Registration of Assistant Nurses;
- (ii) Registration of both Male and Female Nurses in the same part of the General Register;
- (iii) Extending the period for registration as "existing nurses" to 30th April, 1954;
- (iv) Charging a fee to all Nurses on registration and discontinuing the Retention Fee of \$2 for those Nurses in Non-Government or Municipal Posts. (e.g., Trained Nurse \$10; Assistant Nurse \$5).

STUDENT NURSES' EXAMINATION

The Preliminary and Final Examinations were held three times during the year.

The results were as follows:

Preliminary Examination—

		Part I only.		Part II only.		Parts I & II (together)
April	...	41	Passed	...	No Exam.	...
July	...	20	„	...	7 Passed	...
December	...	28	„	...	29 „	7 „

Final Examination—

April	...	...	...	...	32	Passed
July	...	...	...	...	40	„
December	...	...	...	...	39	„

Entrance Examination.—The Sub-Committee for the Entrance Examination met once during the year and recommended a change in the English Examination. This was made and has proved to be more satisfactory than the Moray House English Tests.

Between January and December, 400 candidates sat this Examination. Of these 138 were successful and 69 were asked to resit the English Examination.

There is a total of 319 Student Nurses in training throughout the Federation; of these 104 are males.

One hundred and five of the total of 319 were recruited during 1954.

**DISTRIBUTION OF REGISTERED NURSES ACCORDING TO
RACES AND STATES/SETTLEMENTS**

Total number on the Register as on 1st January, 1954	799
Number added during 1954	171
	970
Number removed during 1954	6
	964

Distribution by States/ Settlements—

Kedah	...	...	...	...	...	65
Perlis	...	...	...	...	...	6
Penang	...	...	...	...	...	179
Perak	...	...	...	...	...	226
Selangor	...	...	...	...	...	157
Negri Sembilan	...	...	...	...	...	76
Malacca	...	...	...	...	...	65
Johore	...	...	...	...	...	113
Kelantan	...	...	...	...	...	17
Trengganu	...	...	...	...	...	7
Pahang	...	...	...	...	...	53
					Total	964

In Government Service	...	...	...	...	917
Missionary workers	...	...	...	...	33
In Municipalities	...	...	...	...	10
In Private Practice	...	...	...	...	4
				Total	964

Distribution by races—

Europeans	...	...	...	...	...	112
Malays	...	...	...	...	...	73
Indians	...	...	...	...	...	129
Chinese	...	...	...	...	...	562
Eurasians	...	...	...	...	...	85
Others	...	...	...	...	...	3
				Total	...	964

Numbers locally trained	...	...	...	808
Numbers trained outside Malaya	...	...	...	156
			Total	...	964

APPENDIX "E"

REPORT OF THE MALARIA ADVISORY BOARD

The constitution of the Board is as follows:

Six permanent members (Medical)	The Director of Medical Services (<i>Chairman</i>); The Director, Institute for Medical Research (<i>Vice-Chairman</i>); The Senior Malaria Research Officer; The Entomologist, Institute for Medical Research; The Senior Medical Officer, Military Forces; The Principal Medical Officer, Royal Air Force
Five permanent members representing Govern- ment Departments	Representing— Railways, Public Works, Drainage and Irrigation, Education, Agriculture.

MEMBERS NOMINATED BY HIS EXCELLENCY THE HIGH COMMISSIONER

Five Medical Officers in the Public Service appointed by name	Government Medical Officers with experience of anti-malarial work
Five Medical Practitioners not in the Public Service	These are all Estate Medical Practitioners with anti-malarial experience
Two representatives of Planting Interests nominated after consultation with the United Planting Association of Malaya	One Asian and one European Planters' Representative
One member nominated to represent labour interests.	
Four other nominated members (one is an Administrative Officer and three are medical men).	

The Board held one meeting during the year on 18th December; in addition there were two meetings of the Legal Sub-Committee, one on 23rd January and the other on 4th May. The following guests were present at the meeting in December; Surgeon Commander C. P. Collins, D.S.C., R.N., Naval Medical Officer of Health; Major M. A. C. Dowling, R.A.M.C., Singapore Base District; Dr. Ling Ding Seng, City Health Office, Singapore; Dr. B. Didsbury, Health Officer, Negri Sembilan; Dr. J. F. B. Edeson and Mr. R. H. Wharton, Filariasis Research Laboratory, Institute for Medical Research, Kuantan, Pahang.

2.—REVIEW OF LOCAL MALARIA

Malaria admissions to hospital in 1954 were some 3,000 less than in the previous year. The decrease was general throughout the Federation, and only one State, Trengganu, recorded an increase. Admissions of malaria cases into Government and Estate hospitals show a general downward trend since 1947, interrupted only by a temporary increase in 1951; the number of out-patients treated for fever at the fixed and travelling dispensaries of the Government Medical Department shows a similar downward trend. Comparison with pre-war figures helps to emphasise the extent of the change. In 1933, which was not considered to be a malarious year, the four Federated Malay States of Perak, Selangor, Negri Sembilan and Pahang, recorded 23,000 malaria admissions. Twenty-one years later, in 1954, despite a population increase of well over 40 per cent., the same four States recorded 4,601 malaria admissions, or one-fifth of the 1933 total.

The case mortality rate of malaria patients admitted to hospital was 1.1 per cent., a slight decrease from 1953.

3.—REVISION OF ANTI-MALARIAL LAW

As foreshadowed in the report for last year, the law relating to prevention of malaria on estates was revised by a Sub-Committee of the Board.

Two meetings were held, at the second of which Mr. Hunter replaced Mr. Hamilton Moore who had retired. As a result of these meetings a new draft was agreed to by majority vote. This draft takes into account the newer methods of malaria control, i.e., prophylactic drugs and residual insecticides, which require some co-operation from individuals and from occupants of dwellings for their success. The old section was concerned solely with anti-larval measures. The new draft has not yet become law as the health provisions of the Employment Bill, of which the section on malaria control is a part, are being reconsidered; however it is likely that this draft will form the basis of whatever is finally accepted.

4.—DDT HOUSE SPRAYING

The returns for the first half of 1954 showed that some 578,000 persons in rural areas were living in sprayed houses; an increase of about 6,000 over the second half of 1953. Costs varied between 88 cents and \$2.36 per person per year, with an average of \$1.32. Spraying usually aimed at applying 100 mg. DDT per sq. ft. four times a year or 200 mg. twice a year. A 25 per cent emulsifiable concentrate was generally used, although one State used BHC wettable powder. By the end of the year the number of persons protected by spraying had risen to 604,000.

The returns of spraying were first introduced in 1953, and an analysis of these was made early in 1954. This analysis suggested that in most places the doses applied were much too small to be effective, and recommendations were made to try and overcome this fault. Judging from the 1954 returns there was a big improvement but to what extent this reflects a real improvement in spraying technique rather than an 'adjustment' of the returns it is difficult

to say. Presumably the efforts made had some beneficial effect, particularly the advice on spraying technique contained in the circular mentioned in the report for last year, and in the revised edition of the Board's Circular No. 7 "Malaria Control by Modern Methods." But there are limits to what can be done by Circulars, and only adequate training and supervision on the ground will produce real efficiency.

In November the second Asian conference on malaria control convened by the World Health Organisation, was held in the Philippines and Taiwan. Malaya was represented by two members of the Board—the Director and Senior Malaria Research Officer of the Institute for Medical Research. They concluded that Malaya is at least abreast, and in some instances ahead, of most countries in Southeast Asia in knowledge of drug prophylaxis, mosquito behaviour and insecticides. Where Malaya lags behind is in anti-malarial legislation, co-ordination of malaria control between areas, and in the lack of training facilities for anti-malarial staff. This last point is particularly important, but difficulties of accommodation and finance have so far prevented the formation of a suitable training and advisory centre.

The Second Asian Conference was much concerned with the growing number of reports of resistance to DDT and similar insecticides by various species of *Anopheles*. It was feared that unless spraying campaigns could be conducted with great intensity and efficiency, so as to bring an early end to transmission, there was a risk of resistance developing before malaria could be brought under control. Whilst it is dangerous to prophesy, it seems unlikely that the anophelines which carry malaria in Malaya will develop resistance as a result of house spraying, for their habits do not bring them into houses often enough. As a corollary of this it is unlikely that house spraying alone, however efficient, will completely stop transmission, and field experiments in Malaya support this conclusion. The experiments showed that house spraying can bring about a big reduction in malaria carried by *A. maculatus* in Malay kampongs, but cannot quite stop transmission. The numbers of *maculatus* are only slightly reduced by house spraying.

The use of DDT as a larvicide could perhaps induce anopheline resistance, for within the area controlled in this way most of the larvae would come in contact with the DDT. The warning by the Conference against the use of the residual insecticides for both house spraying and larvicing in the same area seems well founded.

5.—PRESENT AND FUTURE PATTERN OF CONTROL

There are no exact statistics available, but it is estimated that about 2.2 million of the Federation's population of about 5,800,000 are protected by some form of malaria control. Among the unprotected 3.5 million, many live in areas of very low malaria incidence such as the ricefields of Krian and North Kedah. About 1.3 million of the 2.2 million protected live in towns and villages where control is by the classical anti-larval methods that were pioneered by Sir Malcolm Watson and others. In Malaya these

methods can give a very high degree of control, better than can be obtained by the use of drugs or insecticides, and they will always be the basis of malaria control for towns.

In rural areas, especially scattered Malay kampongs where previously control was impossible, house spraying with residual insecticides now offers a practical means of reducing malaria, and some 0.6 million people in new villages and kampongs are now protected by this means. The main point of debate at present is how much we can afford to extend this form of control, having regard to the cost (at present about \$1.30 per person per year), and the fact that malaria is reduced but not eliminated, so that spraying once started will probably have to be continued indefinitely.

The balance of about 0.3 million persons protected are chiefly those living on estates who are protected mainly by the use of prophylactic drugs.

The following suggestions were submitted to the Board at its meeting in December as a guide to future policy:

1. *Towns and many new villages.*—Control by anti-larval measures.
2. *Rural areas.*—Residual spraying. Suppressive drugs may also be used in combination with spraying if the situation warrants it, and distribution can be organised.
3. *Estates and mines.*—The choice of method must be based on local conditions. A wider adoption of house spraying is suggested, especially where surrounding kampongs are being sprayed.
4. Funds should not be tied to one control method. Health Officers should have discretion in the choice of method.

The following points refer especially to residual Spraying:

5. It may be advisable not to use DDT and similar substances as larvicides if house spraying is contemplated in the neighbourhood. It would be better to restrict the use of DDT larvicides to the outskirts of towns.
6. Have sound public health reasons for undertaking spraying.
7. Try to avoid scattered islands of control surrounded by uncontrolled malarious areas.
8. Try to assess the effect of control on malaria incidence, and ensure prompt reporting of cases.
9. Try to train staff and improve technique. A central training and advisory unit for all grades of anti-malaria staff is badly needed.

6.—CIRCULARS

The Board's Circular No. 7, "Malaria Control by Modern Methods" was first issued in 1952, but was soon out of print. A revised edition, brought up to date and with improved directions for residual house spraying, was issued in July and has been in steady demand since.

TABLE 1
IN PATIENTS

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954
INTERMEDIATE LIST OF 150 CAUSES FOR TABULATION OF MORBIDITY
AND MORTALITY—(See footnote below)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		I.—INFECTIVE AND PARASITIC DISEASES					
A 1	001-008	Tuberculosis of respiratory system	2,910	6,451	9,361	956	2,974
A 2	010	Tuberculosis of meninges and central nervous system	8	151	159	90	12
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	2	73	75	20	9
A 4	012-013	Tuberculosis of bones and joints	126	523	649	14	151
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue	12	12	24	3	19
	(b) 015	Tuberculosis of lymphatic system	9	188	197	3	19
	(c) 016	Tuberculosis of genito-urinary system	1	47	48	1	5
	(d) 017	Tuberculosis of adrenal glands .. ..	..	16	16	..	1
	(e) 018	Tuberculosis of other organs	2	35	37	5	2
	(f) 019	Disseminated tuberculosis .. ..	..	17	17	4	
A 6	020	Congenital syphilis	1	71	72	16	3
A 7	(a) 021.0-021.1	Primary syphilis	3	42	45	1	3
	(b) 021.2	Secondary syphilis	18	196	214	1	12
	(c) 021.3	Early syphilis, relapse following treatment .. ..	..	4	4	..	
	(d) 021.4	Early syphilis (unspecified stage) .. ..	..	6	6	..	
A 8	024	Tabes dorsalis	3	19	22	1	4
A 9	025	General paralysis of insane	71	73	144	33	58
A 10	(a) 022	Aneurysm of aorta .. ..	..	16	16	4	
	(b) 023	Other cardiovascular syphilis	1	29	30	5	1
	(c) 026	Other syphilis of central nervous system	1	35	36	5	3
	(d) 027	Tertiary syphilis	14	131	145	5	12
	(e) 028	Latent syphilis	1	8	9	..	1
	(f) 029	Syphilis unqualified	4	61	65	2	3
A 11	(a) 030	Acute or unspecified gonorrhoea	10	284	294	..	4
	(b) 031	Chronic gonococcal infection of genito-urinary system	2	58	60	..	
	(c) 032	Gonococcal infection of joint	3	54	57	..	1
	(d) 033	Gonococcal infection of eye	4	30	34	..	
	(e) 034-035	Gonococcal infection of other sites	1	8	9	..	
A 12	040	Typhoid fever	51	847	898	67	31
A 13	(a) 041	Paratyphoid fever A, B or C	1	23	24	..	1
	(b) 042	Other salmonella infections .. ..	..	..	..	..
A 14	043	Cholera .. ..	..	1	1	..	
A 15	044	Brucellosis (undulant fever) .. ..	..	1	1	..	
A 16	(a) 045	Bacillary dysentery	2	196	198	6	1
	(b) 046	Amoebiasis	46	1,435	1,481	42	52
	(c) 047-048	Other protozoal and unspecified forms of dysentery	17	448	465	18	14
A 17	050	Scarlet fever .. ..	..	..	..	..
A 18	051	Streptococcal sore throat .. ..	..	14	14	..	
A 19	052	Erysipelas	1	22	23	..	1
A 20	053	Septicaemia and pyaemia	2	90	92	45	1
A 21	055	Diphtheria	36	1,450	1,486	294	72
A 22	056	Whooping Cough	10	278	288	11	4
A 23	057	Meningococcal infections	1	8	9	2	
A 24	058	Plague .. ..	..	..	..	..
A 25	060	Leprosy	3,333	831	4,164	51	3,327
A 26	(a) 061	Tetanus of the new-born .. ..	..	207	207	152	2
	(b) —	Tetanus, other forms	5	221	226	83	10
A 27	062	Anthrax .. ..	..	..	..	..
A 28	080	Acute Poliomyelitis	6	96	102	7	6
A 29	082	Acute infectious encephalitis .. ..	..	17	17	7	
		<i>Carried forward</i> ..	6,718	14,823	21,541	1,951	6,800

The headings are taken from the Intermediate List of 150 Causes for Tabulation of Morbidity and Mortality as published in the "Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death" (Sixth Revision, 1948).

Reference should be made to the Detailed List of the Diseases published on pages 45 to 321 of the above Manual whenever there is any doubt about the entry in the list.

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	6,718	14,823	21,541	1,951	6,800
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)					
A 30	081	Late effects of acute poliomyelitis and acute infectious encephalitis	4	73	77	..	8
A 31	083	Smallpox	8	393	401	1	6
A 32	084	Measles					
A 33	085	Yellow fever					
A 34	091	Infectious hepatitis	15	538	553	19	9
A 35	092	Rabies					
A 36	094	Louse-borne epidemic typhus ..					
(a)	100	Flea-borne endemic typhus (murine) ..	2	53	55	..	1
(b)	101	Tick-borne epidemic typhus ..					
(c)	104	Mite-borne typhus	5	188	193	2	3
(d)	105	Other and unspecified typhus ..	3	69	72	2	
(e)	102-103	Vivax malaria (benign tertian) ..	25	1,727	1,752	8	19
	106-108	Malariae malaria (quartan) ..	..	26	26		
A 37	(a) 110	Falciparum malaria (malignant tertian)	69	3,911	3,980	79	43
(b)	111	Mixed malaria infections	2	160	162	5	1
(c)	112	Blackwater fever .. .. ..	..	2	2	1	
(d)	114	Other and unspecified forms of malaria	69	4,263	4,332	41	75
(e)	115	Schistosomiasis vesical (S. haematoeum)					
(f)	113	Schistosomiasis intestinal (S. Mansoni)					
A 38	116-117	Schistosomiasis Pulmonary (S. japonicum)					
(a)	123.0	Other and unspecified Schistosomiasis					
(b)	123.1	Hydatid disease .. .. ..	..	10	10	1	
(c)	123.2	Onchocerciasis					
(d)	123.3	Loiasis					
A 39	125	Filariasis (bancrofti)	4	36	40	..	1
A 40	(a) 127	Other filariasis	7	415	422	..	7
(b)	—	Ankylostomiasis	17	1,293	1,310	1	23
A 41	129	Tape worm (infestation) and other cestode infestation .. .. ..	..	8	8	..	2
A 42	(a) 126	Ascariasis	34	3,010	3,044	6	46
(b)	130.0	Guinea worm (dracunculosis) .. .. ..	..	1	1		
(c)	130.3	Other trematode infestation .. .. ..	..	3	3		
(d)	124	Trichiniasis .. .. ..	..	1	1		
(e)	128	Other diseases due to helminths	1	210	211	1	6
(f)	130.1-130.2	Chancroid .. .. ..	..	41	41		
A 43	(a) 036	Lymphogranuloma venereum .. .. ..	..	29	29		
(b)	037	Granuloma inguinale, venereal	1	7	8	1	1
(c)	038	Other and unspecified venereal diseases .. .. ..	..	10	10		
(d)	039	Food poisoning infection and intoxication	2	107	109		
(e)	049	Tularaemia					
(f)	059	Gas gangrene .. .. ..	..	6	6	2	
(g)	063	(a) Glanders					
(h)	064	(b) Melioidosis					
(i)	070	(c) Other bacterial diseases					
(j)	071	Vincent's infection .. .. ..	..	7	7	1	3
(k)	072	Relapsing fever					
(l)	073	Leptospirosis icterohaemorrhagica (Weil's disease) .. .. ..	..	14	14	4	
(m)	086	Yaws	35	476	511	..	18
(n)	087	Rubella .. .. ..	..	5	5		
(o)	088	Chickenpox	19	708	727	..	27
(p)	089	Herpes Zoster	8	215	223	..	7
(q)	090	Mumps	26	440	466	..	8
		<i>Carried forward</i> ..	7,079	33,404	40,483	2,126	7,115

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	7,079	33,404	40,483	2,126	7,115
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)					
(r)	093	Glandular fever .. .. ..	..	10	10		
(s)	095	Trachoma	2	105	107		
(t)	096.7	Sandfly fever					
(u)	120	Leishmaniasis					
(v)	121	(a) Trypanosomiasis gambiensis ..					
		(b) Trypanosomiasis rhodesiensis ..					
		(c) Other and unspecified trypanosomiasis					
(w)	131	Dermatophytosis	15	287	302	..	5
(x)	135	Scabies	6	370	376	..	10
(y)	054.074	All other diseases classified as infective and parasitic	1	66	67	4	
	096.1-096.6						
	096.8,096.9						
	122						
	132-134						
	136-138						
		II.—NEOPLASMS					
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx	12	235	247	43	17
A 45	150	Malignant neoplasm of oesophagus ..	5	99	104	28	7
A 46	151	Malignant neoplasm of stomach ..	12	278	290	109	12
A 47	(a) 152	Malignant neoplasm of small intestine, including duodenum ..	..	24	24	6	
	(b) 153	Malignant neoplasm of large intestine, except rectum	2	46	48	16	1
A 48	154	Malignant neoplasm of rectum ..	7	111	118	31	10
A 49	161	Malignant neoplasm of larynx ..	1	27	28	5	4
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	6	126	132	52	8
A 51	170	Malignant neoplasm of breast ..	2	83	85	8	9
A 52	171	Malignant neoplasm of cervix uteri ..	10	266	276	33	14
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus ..	..	31	31	5	
A 54	177	Malignant neoplasm of prostate ..	3	20	23	2	
A 55	190-191	Malignant neoplasm of skin ..	12	253	265	26	15
A 56	196-197	Malignant neoplasm of bone and connective tissue	2	37	39	21	
A 57	(a) 155-156	Malignant neoplasm of liver ..	8	237	245	100	7
	(b) 157	Malignant neoplasm of pancreas ..	..	20	20	8	
	(c) 158	Malignant neoplasm of peritoneum ..	..	10	10	3	
	(d) 159	Malignant neoplasm of unspecified digestive organs .. .. ..	..	19	19	9	1
	(e) 175-176	Malignant neoplasm of other and unspecified female genital organs ..	..	34	34	6	2
	(f) 178-179	Malignant neoplasm of other and unspecified male genital organs ..	..	30	30	3	3
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs ..	1	39	40	14	2
	(h) 160						
	164-165	Malignant neoplasm of all other and unspecified sites	5	240	245	38	5
	192-195						
	198-199						
A 58	204	Leukaemia and Aleukaemia ..	2	59	61	31	1
A 59	(a) 200	Lymphosarcoma and reticulosarcoma .. .. ..	..	15	15	5	1
	(b) 201	Hodgkin's disease	3	14	17	5	1
	(c) 202-203	Other neoplasm of lymphatic and haematopoietic system	1	19	20	4	
	(d) 205	Mycosis fungoides .. .. ..	..	2	2		
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system ..	..	43	43	3	1
		<i>Carried forward</i> ..	7,197	36,659	43,856	2,744	7,251

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	7,197	36,659	43,856	2,744	7,251
		II.—NEOPLASMS—(cont.)					
(b)	217	Benign neoplasm of other female genital organs		59	59	2	3
(c)	218	Benign neoplasm of other male genital organs .. .. ..	..	6	6	1	
(d)	212-216	Benign neoplasm of other and unspecified organs and tissue	10	334	344	6	10
(e)	219-229	Neoplasm of unspecified nature of digestive organs	2	23	25	4	1
(f)	230	Neoplasm of unspecified nature of other female genital organs	4	28	32	1	
(g)	233-235	Neoplasm of unspecified nature of other unspecified organs	5	195	200	17	6
		III.—ALLERGIC ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES AND					
		IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS					
A 61	250-251	Nontoxic goitre	3	98	101	2	5
A 62	252	Thyrotoxicosis with or without goitre	8	235	243	11	7
A 63	260	Diabetes mellitus	53	1,053	1,106	43	61
A 64	(a) 280	Beri Beri	37	587	624	45	39
	(b) 281	Pellagra		1	1		
	(c) 282	Scurvy		7	7		2
	(d) 283-284	Rickets	2	23	25		
	(e) 285	Osteomalacia	1		1		
	(f) 286.0	(a) Sprue	1	14	15		
	286.5	(b) Malnutrition	30	682	712	123	52
	286.1-286.4	(c) Other deficiency states	8	302	310	20	5
A 65	(a) 286.6						
	(a) 290	Pernicious and other hyperchromic anaemias	3	86	89	14	3
	(b) 291	Iron deficiency anaemias (hypochromic)	58	1,095	1,153	41	35
	(c) 292-293	Other specified and unspecified anaemias	182	2,186	2,368	128	176
A 66	(a) 241	Asthma	89	2,665	2,754	49	95
	(b) 240	Angioneurotic oedema, urticaria and other allergic disorders	3	376	379	1	18
	242-245	Myxoedema and cretinism	2	7	9	1	
	(c) 253	Other diseases of thyroid gland		50	50	1	1
	(d) 254	Disorders of pancreatic internal secretion other than diabetes mellitus		3	3	1	
	(e) 270	Diseases of parathyroid gland		4	4		
	(f) 271	Diseases of pituitary gland		10	10	2	
	(g) 272	Diseases of thymus gland					
	(h) 273	Diseases of adrenal gland		2	2		
	(i) 274	Other diseases of endocrine glands		7	7		
	(j) 275-277	Gout	2	23	25		2
	(l) 287, 289	Other metabolic diseases		36	36		
	(m) 294	Polycythaemia					
	(n) 295	Haemophilia		4	4	1	
	(o) 296	Purpura and other haemorrhagic conditions		31	31	7	2
	(p) 297	Agranulocytosis	1	5	6		
	(q) 298	Diseases of spleen		33	33	1	1
	(r) 299	Other diseases of blood and blood-forming organs	2	50	52	5	3
		<i>Carried forward</i> ..	7,703	46,979	54,682	3,272	7,779

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	7,703	46,979	54,682	3,272	7,779
		V.—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS					
A 67	(a) 300	Schizophrenic disorders (dementia praecox)	2,035	1,027	3,062	56	2,185
	(b) 301	Maniac-depressive reaction	452	330	782	10	417
	(c) 302	Involuntary melancholia	97	58	155	11	93
	(d) 303	Paranoia and paranoid states	8	12	20	8	
	(e) 304	Senile psychoses	433	316	749	82	491
	(f) 305-309	Other and unspecified psychoses	616	807	1,423	27	686
A 68	(a) 311	Hysterical reaction	8	225	233	..	5
	(b) 314	Neurotic-depressive reaction	2	72	74	1	3
	(c) 322	Alcoholism		244	244	..	2
	(d) 323	Other drug addiction	5	257	262	1	9
	(e) 310						
	312-313						
	315-321						
	324	Other psychoneuroses and disorders of personality	478	602	1,080	3	510
	326						
A 69	325	Mental deficiency	162	508	670	7	158
		VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS					
A 70	(a) 331	Cerebral haemorrhage	4	339	343	256	5
	(b) 332	Cerebral embolism and thrombosis	26	253	279	74	30
	(c) 330	Other vascular lesions affecting central nervous system	13	104	117	31	10
	333-334						
A 71	340	Non-meningococcal meningitis	4	261	265	112	6
A 72	345	Multiple sclerosis		6	6		
A 73	353	Epilepsy	27	371	398	19	29
A 74	(a) 370	Conjunctivitis and ophthalmia	37	1,898	1,935	..	28
	(b) 371-379	Other inflammatory diseases of eye	27	721	748	2	14
A 75	385	Cataract	85	1,239	1,324	..	109
A 76	387	Glaucoma	5	95	100	..	2
A 77	(a) 390	Otitis externa	3	148	151	..	3
	391-393	Otitis media and mastoiditis	14	614	628	14	15
	394	Other inflammatory diseases of ear	2	90	92	1	1
A 78	(a) 380-384	All other diseases and conditions of eye	106	1,183	1,289	..	129
	386, 388	Intracranial and intraspinal abscess .. ..	..	26	26	16	1
	389	Encephalitis, myelitis and encephalomyelitis	4	202	206	83	2
	342	Paralysis agitans	9	46	55	5	8
	343	Other cerebral paralysis	89	311	400	16	89
	350	Motor neurone disease and muscular atrophy	3	27	30	1	2
	352	Other diseases of spinal cord	5	46	51	5	12
	356	Other and unspecified forms of neuralgia and neuritis	24	1,269	1,293	1	46
	357	Other diseases of cranial nerves	3	23	26	1	1
	366	Diseases of peripheral autonomic nervous system .. .. ..	..	46	46	..	4
	367						
	369						
	(k) 341, 344						
	351, 354						
	355						
	360-365	All other diseases of the nervous system and sense organs	11	492	503	8	31
	368						
	395-398						
		<i>Carried forward</i> ..	12,500	61,247	73,747	4,115	12,923

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	12,500	61,247	73,747	4,115	12,923
		VII.—DISEASES OF THE CIRCULATORY SYSTEM					
A 79	(a) 400	Rheumatic fever without mention of heart involvement .. ..	..	234	234	4	12
	(b) 401	Rheumatic fever with heart involvement	14	93	107	12	8
	(c) 402	Chorea	16	16	32	..	1
A 80	(a) 410-413	Diseases of valves specified as rheumatic .. ..	..	113	113	16	6
	(b) 414	Other endocarditis specified as rheumatic	10	25	35	3	1
	(c) 415	Other myocarditis specified as rheumatic	2	7	9	..	
	(d) 416	Other heart disease specified as rheumatic	2	45	47	8	
A 81	(a) 420	Arteriosclerotic heart disease, including coronary disease	7	134	141	62	3
	(b) 421	Chronic endocarditis not specified as rheumatic	9	100	109	11	10
	(c) 422	Other myocardial degeneration ..	12	220	232	103	13
A 82	(a) 430	Acute and subacute endocarditis ..	1	43	44	7	1
	(b) 431	Acute myocarditis	14	262	276	76	12
	(c) 432	Acute pericarditis	4	32	36	11	2
	(d) 433	Functional disease of heart ..	28	864	892	228	47
	(e) 434	Other and unspecified diseases of heart	47	962	1,009	279	48
A 83	440-443	Hypertension with heart disease	18	534	552	174	31
A 84	444-447	Hypertension without mention of heart	44	996	1,040	56	47
A 85	(a) 450	General arteriosclerosis	5	26	31	4	1
	(b) 451	Aortic aneurysm specified as non-syphilitic and dissecting aneurysm ..	..	25	25	2	
	(c) 452	Other aneurysm, except of heart and aorta	2	11	13	1	
	(d) 453	Peripheral vascular disease ..	..	14	14	1	
	(e) 454	Arterial embolism and thrombosis ..	..	65	65	26	4
	(f) 455	Gangrene of unspecified cause ..	2	84	86	14	9
	(g) 456	Other diseases of arteries	1	33	34	1	4
A 86	(a) 460-462	Varicose veins	2	125	127	..	1
	(b) 461	Haemorrhoids ..	46	1,080	1,126	2	36
	(c) 463-464	Phlebitis and thrombophlebitis ..	3	95	98	1	
	(d) 465	Pulmonary embolism and infarction ..	2	38	40	20	1
	(e) 466	Other venous embolism and thrombosis .. ..	..	28	28	8	2
	(f) 467	Other diseases of circulatory system	7	38	45	11	2
	(g) 468	(a) Adenitis	19	568	587	..	11
		(b) Lymphadenitis	2	185	187	..	2
		(c) Other diseases of lymph nodes and lymph channels ..	5	88	93	2	2
		VIII.—DISEASES OF THE RESPIRATORY SYSTEM					
A 87	(a) 470	Acute nasopharyngitis (common cold)	22	2,372	2,394	..	22
	(b) 471	Acute sinusitis	2	204	206	..	7
	(c) 472	Acute pharyngitis	11	683	694	..	9
	(d) 473	Acute tonsillitis	30	1,776	1,806	2	24
	(e) 474	Acute laryngitis and tracheitis ..	7	204	211	2	4
	(f) 475	Other acute upper respiratory infections	17	215	232	7	3
A 88	(a) 480	Influenza with pneumonia ..	2	54	56	1	
	(b) 481	Influenza with other respiratory manifestations, and influenza unqualified	40	2,658	2,698	1	23
		<i>Carried forward</i> ..	12,955	76,596	89,551	5,271	13,333

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	12,955	76,596	89,551	5,271	13,333
VIII.—DISEASES OF THE RESPIRATORY SYSTEM—(cont.)							
(c)	482	Influenza with digestive manifestations, but without respiratory symptoms	2	51	53	..	2
(d)	483	Influenza with nervous manifestations, but without digestive or respiratory symptoms	274	274			
A 89	490	Lobar pneumonia	15	769	784	117	16
A 90	491	Broncho-pneumonia	48	2,867	2,915	911	44
A 91	492-493	Primary atypical, other and unspecified pneumonia	18	871	889	155	26
A 92	500	Acute bronchitis	39	2,421	2,460	21	39
A 93	(a) 501	Bronchitis unqualified	71	3,456	3,527	11	86
	(b) 502	Chronic bronchitis	55	1,061	1,116	34	66
A 94	510	Hypertrophy of tonsils and adenoids	3	279	282	1	6
A 95	(a) 518	Empyema	7	103	110	21	5
	(b) 521	Abscess of lung	12	124	136	18	10
A 96	519	Pleurisy	49	440	489	9	37
A 97	(a) 517	Other diseases of upper respiratory tract	1	401	402	10	3
	(b) 520	Spontaneous pneumothorax	1	11	12	3	
	(c) 522	Pulmonary congestion and hypostasis		7	7	3	
	(d) 525	Other chronic interstitial pneumonia .. .. ..	..	5	5		
	(e) 523	Pneumoconiosis .. .. ..	..	1	1	1	
	(f) 526	Bronchiectasis	22	406	428	24	25
	(g) 511-516 } 524	All other respiratory diseases	16	438	454	21	14
	527 }						
IX.—DISEASES OF THE DIGESTIVE SYSTEM							
A 98	(a) 530	Dental caries	1	352	353	..	8
	(b) 531-535	(a) Gingivitis .. .. ..	..	87	87	..	2
		(b) Pyorrhoea	1	76	77	..	2
		(c) Other diseases of teeth and supporting structures	10	448	458	2	5
A 99	540	Ulcer of stomach	60	1,363	1,423	80	72
A 100	541	Ulcer of duodenum	25	491	516	40	23
A 101	543	Gastritis and duodenitis	53	2,228	2,281	5	50
A 102	550-553	Appendicitis	66	1,995	2,061	26	59
A 103	(a) 560	Hernia of abdominal cavity without mention of obstruction	43	1,261	1,304	10	31
	(b) 561	Hernia of abdominal cavity with obstruction	6	254	260	18	2
	(c) 570	(a) Intussusception	2	41	43	10	4
		(b) Volvulus .. .. ..	..	18	18	11	
		(c) Other intestinal obstruction	2	150	152	46	10
A 104	(a) 571.0	Gastro-enteritis and colitis between 4 weeks and 2 years	54	2,761	2,815	703	47
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over	49	2,947	2,996	181	40
	(c) 572	Chronic enteritis and ulcerative colitis	7	165	172	7	9
A 105	(a) 581.0	Cirrhosis of liver without mention of alcoholism	26	527	553	124	19
	(b) 581.1	Cirrhosis of liver with alcoholism	1	53	54	13	1
A 106	(a) 584	Cholelithiasis	1	70	71	4	1
	(b) 585	Cholecystitis without mention of calculi	9	278	287	10	10
		<i>Carried forward</i>	13,730	106,146	119,876	7,921	14,107

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	13,730	106,146	119,876	7,921	14,107
IX.—DISEASES OF THE DIGESTIVE SYSTEM—(cont.)							
A 107	(a) 536	Stomatitis	6	229	235	3	3
	(b) 538	Other diseases of buccal cavity ..	1	65	66	1	3
	(c) 539	(a) Functional disorders of oesophagus .. .. .. ..	..	20	20	2	
		(b) Stricture or obstruction of oesophagus	6	93	99	8	3
	(d) 544	Disorders of function of stomach	20	726	746	..	17
	(e) 545	Other diseases of stomach and duodenum	6	270	276	8	7
	(f) 573	(a) Constipation	2	541	543	..	2
		(b) Other functional disorders of intestines	11	811	822	6	15
	(g) 574	Anal fissure and fistula	13	246	259	1	10
	(h) 575	Abscess of anal and rectal regions	7	232	239	2	8
	(i) 576	Peritonitis	2	232	234	124	9
	(j) 578	Other diseases of intestines and peritoneum	1	57	58	6	4
	(k) 580	(a) Acute yellow atrophy of liver .. .. .. ..	..	14	14	10	
		(b) Degeneration of liver .. .. .. ..	..	6	6	3	
		(c) Hepatitis	18	570	588	24	24
	(l) 583	Other diseases of liver	9	161	170	30	10
	(m) 586	Other diseases of gall-bladder and biliary ducts	6	148	154	13	1
	(n) 587	Diseases of pancreas .. .. .. ..	..	21	21	10	
	(o) 537, 542 } 577, 582 }	Other diseases of digestive system	10	606	616	12	22
X.—DISEASES OF THE GENITO-URINARY SYSTEM							
A 108	590	Acute nephritis	19	460	479	40	31
A 109	(a) 591	Nephritis with oedema, including nephrosis	3	135	138	16	7
	(b) 592	Chronic nephritis	36	435	471	108	23
	(c) 593	Nephritis not specified as acute or chronic	24	466	490	40	34
	(d) 594	Other renal sclerosis	3	44	47	1	6
A 110	600	Infections of kidney	6	499	505	19	8
A 111	(a) 602	Calculi of kidney and ureter	6	315	321	5	7
	(b) 604	Calculi of other parts of urinary system	9	209	218	2	6
A 112	610	Hyperplasia of prostate	3	59	62	4	5
A 113	620-621	Diseases of breast	2	117	119	1	1
A 114	(a) 603	Other diseases of kidney and ureter	10	492	502	22	24
	(b) 605	Cystitis	10	489	499	3	13
	(c) 606	Other diseases of bladder	6	129	135	4	5
	(d) 608	Stricture of urethra	18	283	301	1	10
	(e) 609	Other diseases of urethra	7	247	254	1	7
	(f) 612	Other diseases of prostate	12	181	193	10	8
	(g) 613	Hydrocele	15	298	313	..	6
	(h) 614	Orchitis and epididymitis	12	390	402	..	5
	(i) 617	Other diseases of male genital organs	8	634	642	..	22
	(j) 622	Acute salpingitis and oophoritis	5	280	285	..	8
	(k) 625	Other diseases of ovary and Fallopian tube	11	174	185	2	3
	(l) 626	Diseases of parametrium and pelvic peritoneum (female)	8	85	93	..	2
	(m) 630	Infective disease of uterus, vagina and vulva	5	319	324	1	3
		<i>Carried forward</i> ..	14,086	117,934	132,020	8,464	14,489

TABLE 1—(cont.)
IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	14,086	117,934	132,020	8,464	14,489
		X.—DISEASES OF THE GENITO-URINARY SYSTEM —(cont.)					
(n)	633	Other diseases of uterus	20	505	525	7	15
(o)	634	Disorders of menstruation	13	632	645	..	16
(p)	637	Other diseases of female genital organs	11	513	524	5	13
(q)	601	All other diseases of the genito-urinary system	9	508	517	10	21
	607, 611						
	615-616						
	623-624						
	631-632						
	635-636						
		XI.—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM					
A 115	(a)	Pyelitis and pyelonephritis of pregnancy	9	252	261	..	1
	(b)	Other infections of genito-urinary tract during pregnancy .. .. ..	..	9	9		
	(c)	Sepsis of childbirth and the puerperium	5	168	173	14	6
	(d)	Puerperal phlebitis and thrombosis .. .. ..	..	5	5		
	(e)	Puerperal pulmonary embolism .. .. ..	..	6	6	5	
A 116	(a)	642	(a) Albuminuria of pregnancy	6	181	187	1
	(b)	(b) Eclampsia of pregnancy	4	214	218	56	6
	(c)	(c) Hyperemesis gravidarum	3	229	232	..	8
	(d)	(d) Acute yellow atrophy of liver .. .. ..	..	3	3		
	(e)	(e) Other toxæmias of pregnancy	17	522	539	24	21
	(b)	652	Abortion with toxæmia, without mention of sepsis .. .. ..	..	66	66	
	(c)	685	Puerperal eclampsia	3	88	91	25
	(d)	686	Other forms of puerperal toxæmia	3	59	62	7
A 117	(a)	643	Placenta praevia	2	114	116	16
	(b)	644	Other haemorrhage of pregnancy	5	497	502	13
	(c)	670	Delivery complicated by placenta praevia or antepartum haemorrhage .. .. ..	..	265	270	24
	(d)	671	Delivery complicated by retained placenta	8	520	528	39
	(e)	672	Delivery complicated by other post-partum haemorrhage	3	286	289	66
A 118		650	Abortion without mention of sepsis or toxæmia	87	3,943	4,030	4
A 119		651	Abortion with sepsis	5	211	216	8
A 120	(a)	645	Ectopic pregnancy	4	186	190	16
	(b)	646	Anæmia of pregnancy	43	1,322	1,365	11
	(c)	683	Pyrexia of unknown origin during the puerperium	1	42	43	..
	(d)	688.1	Puerperal psychoses	3	13	16	2
	(e)	689	Mastitis and other disorders of lactation	1	129	130	3
	(f)	647-649	Other complications of pregnancy, childbirth and the puerperium	68	2,594	2,662	54
		673-680					
		687					
		688.0					
	(g)	688.2-688.3					
		660	Delivery without complications	745	47,436	48,181	..
			<i>Carried forward</i> ..	15,169	179,452	194,621	8,871
							15,459

TABLE 1—(cont.)
IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	15,169	179,452	194,621	8,871	15,459
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE AND					
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT					
A 121	(a) 690	Boil and carbuncle	29	894	923	2	15
	(b) 691-693	Cellulitis and abscess	151	5,342	5,493	12	145
	(c) 694-698	Other infections of skin and subcutaneous tissue	37	1,039	1,076	1	36
A 122	(a) 720	Acute arthritis due to pyogenic organisms	2	40	42	1	4
	(b) 721	Acute nonpyogenic arthritis	3	41	44		
	(c) 722	Rheumatoid arthritis and allied conditions	19	335	354	3	17
	(d) 723-725	Arthritis specified and unspecified	54	1,063	1,117		55
A 123	(a) 726	Muscular rheumatism	7	327	334		6
	(b) 727	Rheumatism unspecified	15	323	338	1	6
A 124	730	Osteomyelitis and periostitis	45	502	547	9	34
A 125	(a) 737	Ankylosis of joint	1	27	28		1
	(b) 745-749	Other acquired musculoskeletal deformities	5	56	61		3
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	136	2,292	2,428	3	121
	(b) 700-714	All other diseases of skin	114	3,441	3,555	4	115
	(c) 716 } 731-736 } 738-744 }	All other diseases of musculoskeletal system	18	429	447	1	15
		XIV.—CONGENITAL MALFORMATIONS					
A 127	751	Spina bifida and meningocele ..	2	18	20	4	
A 128	754	Congenital malformations of circulatory system	2	53	55	19	3
A 129	(a) 750	Monstrosity .. .. ..	..	8	8	5	
	(b) 752	Congenital hydrocephalus	2	31	33	17	
	(c) 753	Other congenital malformations of nervous system and sense organs	1	5	6	3	1
	(d) 755	Cleft palate and harelip	14	272	286	..	12
	(e) 756	(a) Congenital hypertrophic pyloric stenosis .. .. ..	..	8	8	5	
		(b) Imperforate anus .. .. ..	..	73	73	25	3
		(c) Other congenital malformations of digestive system .. .. ..	..	12	12	8	
	(f) 757	Congenital malformations of genito-urinary system .. .. ..	..	16	16	1	
	(g) 758	Congenital malformations of bone and joint .. .. ..	..	45	45	1	5
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified	4	68	72	21	3
		XV.—CERTAIN DISEASES OF EARLY INFANCY					
A 130	(a) 760	Intracranial and spinal injury at birth .. .. ..	..	42	42	38	
	(b) 761	Other birth injury .. .. ..	..	29	29	13	
A 131	762	Postnatal asphyxia and atelectasis .. .. ..	..	249	249	211	
A 132	(a) 764	Diarrhoea of newborn	4	109	113	41	5
	(b) 765	Ophthalmia neonatorum	2	30	32	..	1
		<i>Carried forward</i> ..	15,836	196,671	212,507	9,320	16,065

TABLE 1—(cont.)
IN-PATIENTS—(cont.)
RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	15,836	196,671	212,507	9,320	16,065
		XV.—CERTAIN DISEASES OF EARLY INFANCY—(cont.)					
(c)	763	Pneumonia of newborn	2	53	55	29	2
(d)	766	Pemphigus neonatorum .. ..	..	12	12	7	1
(e)	767	Umbilical sepsis	1	57	58	19	
(f)	768	Other sepsis of newborn .. ..	..	9	9	5	
A 133	770	Haemolytic disease of newborn ..	1	30	31	25	
A 134	769	All other defined diseases of early infancy	4	476	480	50	8
A 135	771-772	Congenital debility	2	35	37	17	1
(a)	773	Premature birth	28	1,801	1,829	801	48
(b)	774	Other ill-defined diseases peculiar to early infancy and immaturity unqualified	5	101	106	29	2
		XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS					
A 136	794	Senility without mention of psychoses	247	1,074	1,321	243	253
A 137	780	Infantile convulsions	5	217	222	43	3
(b)	788.8	Pyrexia of unknown origin ..	131	4,605	4,736	106	171
(c)	793	Observation, without need for further medical care	301	7,290	7,591	..	274
(d)	781-787	(a) Malingering .. .. ..	..	47	47	..	1
	789-792	(b) Sudden death (cause unknown) ..	..	1	1	1	
	795	(c) Found dead (cause unknown) ..	..	..	..	..
	788.1-788.7	(d) Other ill-defined and unknown causes of morbidity and mortality	53	835	888	42	53
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE					
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)					
AE 138	E 810-E 835	Motor vehicle accidents	115	2,364	2,479	173	96
AE 139	(a) E 800-E 802	Railway accidents	1	31	32	6	2
(b)	E 850-E 858	Water transport accidents ..	..	13	13		
(c)	E 860-E 866	Aircraft accidents .. ..	..	1	1		
(d)	E 840-E 845	Other transport accidents	10	254	264	2	8
AE 140	(a) E 870	Accidental poisoning by morphia and other opium derivatives ..	..	8	8		
(b)	E 874	Accidental poisoning by other analgesic and soporific drugs ..	..	24	24	2	
(c)	E 878	Accidental poisoning by other and unspecified drugs .. ..	..	54	54	2	4
(d)	E 883	Accidental poisoning by corrosive aromatics, acids and caustic alkalies	9	135	144	18	2
(e)	E 884	Accidental poisoning by mercury and its compounds .. ..	..	..	..	..
(f)	E 885	Accidental poisoning by lead and its compounds .. .. ..	..	1	1		
		<i>Carried forward</i> ..	16,751	216,199	232,950	10,940	16,994

TABLE 1—(cont.)
IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	16,751	216,199	232,950	10,940	16,994
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)					
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)					
(g)	E 886	Accidental poisoning by arsenic and antimony and their compounds ..	..	47	47	13	
(h)	E 888	Accidental poisoning by other and unspecified solid or liquid substances .. .. ..	..	89	89	7	2
(i)	E 890-E 895	Accidental poisoning by gases and vapours .. .. .. ..	..	10	10		
(j)	E871-E873 E875-E877 E879-E882 E 887	Other accidental poisoning ..	..	59	59	4	1
AE 141	E 900-E 904	Accidental falls	207	5,440	5,647	97	145
AE 142	E 912	Accident caused by machinery ..	5	171	176	1	13
AE 143	E 916	Accident caused by fire and explosion of combustible material ..	6	221	227	6	9
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radiation	24	450	474	15	23
AE 145	E 919	Accident caused by firearm	15	162	177	12	8
AE 146	E 929	Accidental drowning and submersion .. .. ..	..	18	18		
AE 147 (a)	E 913	Accidents caused by cutting or piercing instruments	44	1,417	1,461	3	37
(b)	E 914	Accidents caused by electric current ..	1	33	34	1	2
(c)	E 920	Foreign body entering eye and adnexa	2	59	61	1	1
(d)	E 923	Foreign body entering other orifice ..	3	159	162		
(e)	E 925	Accidental mechanical suffocation ..					
(f)	E 926	Lack of care of infants under 1 year of age .. .. ..	..	2	2		
(g)	E 927	Accidents caused by bites and stings of venomous animals and insects ..	17	1,114	1,131	17	18
(h)	E 928	Other accidents caused by animals ..	13	459	472	3	7
(i)	E 931	Excessive heat	1	11	12		
(j)	E 932	Excessive cold .. .. ..	..	1	1		
(k)	E 933	Hunger, thirst and exposure ..	..	1	1		
(l)	E 934	Cataclysm .. .. ..	..			
(m)	E 935	Lightning .. .. ..	..	21	21		
(n)	E 936	(a) Accidents in mines and quarries ..	4	130	134	1	4
		(b) Agricultural and forestry accidents ..	..	57	57	7	1
		(c) Accidental injury by crushing or landslide	1	95	96	4	4
		(d) Other and unspecified accidents ..	22	705	727	4	18
(o)	E 940	Generalized vaccinia following vaccination .. .. ..	..	4	4		
(p)	E 941-E 942	Other complications of smallpox vaccination .. .. ..	..	1	1		
(q)	E950-E953 E955-E959	Accidents due to medical or surgical intervention .. .. ..	..	3	3	3	
(r)	E 954	..	..	1	1		
(s)	E910-E911 E 915	Anaesthetic accidents .. ..	..	1	1		
	E921-E922	All other accidental causes ..	3	272	275	2	8
	E924-E930						
	E943-E946						
	E960-E965						
AE 148 (a)	E 970	Suicide and self-inflicted injury by analgesic and soporific substances ..	..	26	26	7	
		<i>Carried forward</i> ..	17,119	227,437	244,556	11,149	17,295

TABLE 1—(cont.)
IN-PATIENTS—(cont.)
RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
		<i>Brought forward</i> ..	17,119	227,437	244,556	11,149	17,295
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)					
		“E” CODE. ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)					
(b)	E 971	Suicide and self-inflicted injury by other solid and liquid substances	11	145	156	38	4
(c)	E 972	Suicide and self-inflicted injury by gases in domestic use ..					
(d)	E 973	Suicide and self-inflicted injury by other gases ..					
(e)	E 974	Suicide and self-inflicted injury by hanging or strangulation ..		14	14	4	
(f)	E 975	Suicide and self-inflicted injury by submersion (drowning) ..		10	10		
(g)	E 976	Suicide and self-inflicted injury by firearms and explosives ..		1	1	1	
(h)	E 977	Suicide and self-inflicted injury by cutting or piercing instruments ..		32	32	9	1
(i)	E 978	Suicide and self-inflicted injury by jumping from high place ..	2	8	10	4	1
(j)	E 979	Suicide and self-inflicted injury by other and unspecified means ..		5	5		
AE 149 (a)	E 980	Non-accidental poisoning by another person ..					
(b)	E 981	Assault by firearm and explosive ..	14	163	177	18	10
(c)	E 982	Assault by cutting or piercing instruments ..	12	427	439	21	16
(d)	E 983	Assault by other means ..	16	1,194	1,210	12	36
(e)	E 984	Injury by intervention of police ..		2	2		
(f)	E 985	Execution (legal) ..					
AE 150	E 990-E 999	Injury resulting from operations of war					
		“N” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONING AND VIOLENCE (NATURE OF INJURY)					
AN 138	N800-N804	Fracture of skull	9	228	237	78	9
AN 139	N805-N809	Fracture of spine and trunk ..	12	249	261	18	32
AN 140	N810-N829	Fracture of limbs	107	1,954	2,061	6	147
AN 141	N830-N839	Dislocation without fracture ..	7	199	206	1	9
AN 142	N840-N848	Sprains and strains of joints and adjacent muscles ..	7	430	437	..	11
AN 143	N850-N856	Head injury excluding fracture ..	19	915	934	8	21
AN 144	N860-N869	Internal injury of chest, abdomen and pelvis ..	1	68	69	10	2
AN 145	N870-N908	Laceration and open wounds ..	52	2,652	2,704	5	86
AN 146	N910-N929	Superficial injury, contusion and crushing with intact skin surface ..	18	1,297	1,315	..	46
AN 147	N930-N936	Effects of foreign body entering through orifice	3	60	63		
AN 148	N940-N949	Burns	26	855	881	40	47
AN 149	N960-N979	Effects of poisons .. ..	..	78	78	9	6
AN 150	N950-N959	All other and unspecified effects of external causes	10	273	283	4	9
		TOTAL ..	17,445	238,696	256,141	11,435	17,788

TABLE 1—(cont.)

IN-PATIENTS—(cont.)

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1954—(cont.)

Nationalities								Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
Europeans	..	..	..	..	..	..	..	59	2,387	2,446	28	47
Eurasians	..	..	..	..	..	..	..	54	905	959	29	63
Chinese	..	..	..	..	..	..	..	10,522	106,249	116,771	7,190	10,562
Indians	..	..	..	..	..	..	..	3,310	75,047	78,357	2,671	3,430
Malays	..	..	..	..	..	..	..	3,309	51,245	54,554	1,389	3,503
Javanese	..	..	..	..	..	..	..	101	1,459	1,560	61	100
Japanese	..	..	..	..	..	..	..	1	13	14	1	2
Others	..	..	..	..	..	..	..	89	1,391	1,480	66	81
Total ..								17,445	238,696	256,141	11,435	17,788
Healthy persons admitted to hospitals to accompany children or friends ..								78	10,877	10,955	..	198

SUMMARY ACCORDING TO MEN, WOMEN AND CHILDREN

—								Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54
Men ..	..	..	..	..	..	..	..	11,325	106,512	117,837	4,751	11,554
Women ..	..	..	..	..	..	..	..	5,160	99,669	104,829	2,009	5,240
Children: (1 to 10 years) ..	..	..	..	..	..	..	..	722	18,943	19,665	1,519	719
Infants: (under 1 year) ..	..	..	..	..	..	..	..	238	13,572	13,810	3,156	275
Total ..								17,445	238,696	256,141	11,435	17,788

SUMMARY ACCORDING TO HOSPITALS AND AVERAGE DAILY NUMBER OF PATIENTS

—		Remaining at end of 31-12-53	Admissions	Total cases treated	Deaths	Remaining at end of 31-12-54	Average daily number of patients	Number of beds
1. Kedah ..	..	816	25,386	26,202	823	833	906	1,033
2. Perlis ..	..	97	3,778	3,875	119	103	106	120
3. Penang ..	..	1,284	23,427	24,711	1,241	1,335	1,340	1,846
4. Perak ..	..	1,822	50,425	52,247	2,552	1,844	1,879	2,557
5. Selangor ..	..	1,496	35,900	37,396	1,997	1,434	1,552	1,708
6. Negeri Sembilan ..	..	985	21,577	22,562	983	962	1,011	1,263
7. Malacca ..	..	676	12,719	13,395	685	680	705	778
8. Johore ..	..	1,496	34,642	36,138	1,748	1,492	1,649	1,908
9. Kelantan ..	..	319	6,415	6,734	229	347	333	438
10. Trengganu ..	..	218	4,466	4,684	108	284	268	316
11. Pahang ..	..	629	17,003	17,632	678	657	697	796
12. Leper Settlement, Sungei Buloh ..	..	2,460	525	2,985	35	2,401	2,427	2,650
13. Leper Settlement, Pulau Jerejak ..	..	433	78	511	10	440	438	440
14. Leper Settlement, Johore Bahru ..	..	376	80	456	4	416	389	350
15. Leper Camp, Kota Bahru, Kelantan ..	..	40	26	66	..	40	33	40
16. Mental Hospital, Tanjung Rambutan ..	..	3,462	1,659	5,121	181	3,558	3,540	3,000
17. Mental Hospital, Tampoi, J. Bahru ..	..	836	590	1,426	42	962	898	1,200
TOTAL ..		17,445	238,696	256,141	11,435	17,788	18,171	20,443

TABLE 1A
STATEMENT OF GENERAL HOSPITALS, DISTRICT AND
MATERNITY HOSPITALS

State/Settlement	Average daily number of patients	Patients remaining at the end of the year	Patients admitted	Deaths	Death rate per 100 patients treated
KEDAH					
General Hospital, Alor Star	441	401	12,019	433	3.5
District Hospital, Sungai Patani	209	170	6,146	209	3.3
District Hospital, Kulim	194	192	5,879	162	2.7
District Hospital, Baling	15	10	575	7	1.2
District Hospital, Langkawi	47	43	767	12	1.5
PERLIS					
District Hospital, Kangar	106	97	3,778	119	3.1
PENANG					
General Hospital, Penang	533	530	8,974	731	7.7
Maternity Hospital, Penang	73	59	4,304	126	2.9
Perak Road Hospital, Penang	61	51	50	14	13.9
Prison Hospital, Penang	5	4	129	—	—
District Hospital, Balik Pulau	12	13	277	1	0.3
Quarantine Station Hospital, Pulau Jerejak	—	—	77	—	—
Tuberculosis Hospital, Pulau Jerejak	395	382	313	42	6.0
District Hospital, Butterworth	70	68	2,752	112	3.9
District Hospital, Bukit Mertajam	114	107	4,834	124	2.5
District Hospital, Sungai Bakap	77	70	1,717	91	5.1
PERAK					
District Hospital, Parit Buntar	68	68	2,398	64	2.6
General Hospital, Taiping	349	347	7,431	469	6.0
District Hospital, Kuala Kangsar	125	112	3,440	126	3.5
Women's Hospital, Kuala Kangsar	114	106	3,682	140	3.7
District Hospital, Ipoh	493	492	12,847	784	5.9
General Hospital, Batu Gajah	261	233	4,379	229	5.0
District Hospital, Kampar	58	54	2,335	87	3.6
District Hospital, Tapah	114	89	3,656	147	3.9
District Hospital, Tanjung Malim	40	38	2,288	72	3.1
District Hospital, Telok Anson	137	139	4,664	292	5.1
District Hospital, Lumut	109	133	2,759	127	4.4
District Hospital, Grik	11	11	546	15	2.7
SELANGOR					
Bungsar Hospital, Kuala Lumpur	39	34	1,185	26	2.1
General Hospital, Kuala Lumpur	601	573	18,702	1,328	6.9
Tuberculosis (Clinic) Hospital, Kuala Lumpur	94	89	382	4	0.8
Tai Wah (Decrepit) Hospital, Kuala Lumpur	376	390	94	57	11.8
Police Depot Hospital, Kuala Lumpur	6	14	273	—	—
Prison Hospital, Kuala Lumpur	18	15	253	—	—
District Hospital, Klang	216	200	7,161	404	5.5
District Hospital, Kajang	128	121	5,383	98	1.8
District Hospital, Kuala Kubu Bahru	74	60	2,467	80	3.2
NEGRI SEMBILAN					
General Hospital, Seremban	484	453	10,315	559	5.2
District Hospital, Kuala Pilah	185	173	2,175	88	3.7
Women's Hospital, Kuala Pilah	80	98	1,599	109	6.2
District Hospital, Port Dickson	113	130	2,804	78	2.7
District Hospital, Tampin	78	56	2,877	91	3.1
District Hospital, Jelebu	70	74	1,712	58	3.2
Prison Hospital, Seremban	1	1	95	—	—
<i>Carried forward</i>	6,794	6,500	160,493	7,715	—

TABLE 1A—(cont.)

STATEMENT OF GENERAL HOSPITALS, DISTRICT AND MATERNITY HOSPITALS—(cont.)

State/Settlement	Average daily number of patients	Patients remaining at the end of the year	Patients admitted	Deaths	Death rate per 100 patients treated
<i>Brought forward</i> ..	6,794	6,500	160,493	7,715	—
MALACCA					
General Hospital, Malacca ..	605	587	11,509	640	5.3
District Hospital, Alor Gajah ..	95	84	133	45	20.7
Federal S. C. Depot, Malacca ..	1	4	197	—	—
Henry Gurney School, Malacca ..	4	1	845	—	—
Prison Hospital, Malacca ..	—	—	35	—	—
JOHORE					
General Hospital, Johore Bahru ..	581	522	9,298	549	5.6
District Hospital, Kota Tinggi ..	99	97	1,633	54	3.1
District Hospital, Pontian ..	55	64	2,046	55	2.6
District Hospital, Batu Pahat ..	158	146	4,400	236	5.2
District Hospital, Kluang ..	209	194	5,126	205	3.9
District Hospital, Mersing ..	48	18	1,117	46	4.1
District Hospital, Muar ..	245	257	5,619	335	5.7
District Hospital, Tangkak ..	99	66	1,417	45	3.0
District Hospital, Segamat ..	155	132	3,986	223	5.4
KELANTAN					
State Hospital, Kota Bahru ..	284	271	4,865	201	3.9
District Hospital, Kuala Krai ..	43	43	1,458	28	1.9
Prison Hospital, Pkg. Chepa ..	6	5	92	—	—
TRENGGANU					
General Hospital, Kuala Trengganu ..	185	181	2,890	68	2.2
District Hospital, Kemaman ..	34	26	501	22	4.2
District Hospital, Dungun ..	25	11	884	17	1.9
*District Hospital, Besut ..	24	—	191	1	0.5
PAHANG					
General Hospital, Kuala Lipis ..	152	143	3,361	147	4.2
District Hospital, Pekan ..	58	50	808	12	1.4
District Hospital, Kuantan ..	156	137	3,066	107	3.3
District Hospital, Raub ..	109	93	3,680	119	3.2
District Hospital, Bentong ..	119	106	2,389	173	6.9
District Hospital, Mentekab ..	103	100	3,699	120	3.2
	10,446	9,838	235,738	11,163	—
SPECIAL INSTITUTIONS					
Leper Settlement, Sungei Buloh ..	2,427	2,460	525	35	1.2
Leper Settlement, Pulau Jerejak ..	438	433	78	10	1.9
Leper Settlement, Johore Bahru ..	389	376	80	4	0.9
Leper Camp, Kota Bahru, Kelantan ..	33	40	26	—	—
Central Mental Hospital, Tanjung Rambutan ..	3,540	3,462	1,659	181	3.5
Mental Hospital, Tampoi, Johore Bahru ..	898	836	590	42	2.9
TOTAL ..	18,171	17,445	238,696	11,435	4.4

* Opened in August, 1954.

TABLE 2

MALARIA ADMISSIONS (INCLUDING CLINICAL MALARIA) IN GOVERNMENT HOSPITALS BY STATES/SETTLEMENTS AND MONTHS FOR 1954

State/Settlement	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total			
Kedah	98	114	105	107	141	145	114	100	94	95	86	107	1,306
Perlis	24	22	27	22	23	29	23	21	37	24	23	23	298
Penang	44	31	35	50	67	56	50	48	31	27	31	26	496
Perak	146	130	160	155	205	243	238	165	189	183	146	173	2,133
Selangor	34	39	33	43	54	88	77	41	79	64	59	62	673
Negri Sembilan	45	27	51	93	134	146	102	87	91	80	82	44	982
Malacca	9	18	15	19	36	58	46	45	38	20	26	27	357
Johore	87	63	94	104	114	121	93	92	86	94	92	67	1,107
Kelantan	66	60	84	64	79	87	69	53	46	44	44	37	733
Trengganu	21	34	50	33	49	42	36	44	42	56	50	31	488
Pahang	121	105	137	119	205	143	136	97	133	110	88	120	1,514
Total	695	643	791	809	1,107	1,158	795	850	810	728	717	10,087	

TABLE 2A

MALARIA (POSITIVE ADMISSIONS) IN GOVERNMENT HOSPITALS BY STATES/SETTLEMENTS
AND MONTHS FOR 1954

State/Settlement	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total			
Kedah	63	78	77	66	99	103	67	45	48	56	58	71	831
Perlis	12	15	12	11	11	16	13	9	11	21	19	17	167
Penang	24	25	21	42	59	47	38	42	21	15	13	16	363
Perak	50	54	64	64	75	97	112	83	88	95	70	80	932
Selangor	27	32	25	38	40	80	59	33	75	64	56	54	583
Negri Sembilan	23	15	35	72	107	109	81	71	61	73	59	36	742	
Malacca	7	7	7	12	24	39	21	25	14	10	13	10	189
Johore	35	31	48	63	62	82	50	49	41	46	43	29	579
Kelantan	51	51	60	52	50	60	44	30	25	16	26	24	489
Trengganu	9	6	20	15	30	31	19	20	24	32	24	17	247
Pahang	43	55	49	68	113	59	72	42	53	42	42	64	702
Total	344	369	418	503	670	576	449	461	470	423	418	418	418	418	5,824

TABLE 3
SURGICAL OPERATIONS FOR 1954

	State/Settlement						Operations	Deaths
Kedah	4,683	37
Perlis	1,379	—
Penang	4,798	57
Perak	17,053	147
Selangor	19,326	152
Negri Sembilan	3,650	49
Malacca	2,512	50
Johore	8,795	63
Kelantan	1,324	1
Trengganu	1,504	4
Pahang	5,492	15
						Total ..	70,516	575

TABLE 4
OPHTHALMIC PATIENTS FOR 1954

	State/Settlement		Eye diseases proper	Eye injuries	Refrac-tion	General diseases affecting eyes	Disor-ganised eyes	Total	Operations
Kedah	6,417	224	650	280	25	7,596	1,008
Perlis	53	1	—	—	—	54	—
Penang	1,741	207	297	7,296	24	9,565	222
Perak	4,185	401	2,931	17	53	7,587	1,476
Selangor	6,312	822	1,575	—	82	8,791	552
Negri Sembilan	3,388	436	725	173	16	6,916*	388
Malacca	2,328	126	2,043	112	46	4,655	273
Johore	2,154	133	2,575	2,101	9	6,972	173
Kelantan	7,380	66	240	249	7	7,942	125
Trengganu	—	—	—	—	—	—	—
Pahang	240	20	271	43	2	576	25
	Total ..	..	34,198	2,436	11,307	10,271	264	60,654	4,242

(* Includes vision testing of new recruits 2,178)

TABLE 5

SUMMARY OF OUT-PATIENTS TREATED IN EACH STATE AND SETTLEMENT

(Excluding those who were treated at Infant Welfare Centres, School Inspections and Special Clinics)

Hospitals and Dispensaries	Adult Males	Adult Females	Children under 10 years	Total
KEDAH				
At Hospitals	55,829	44,733	46,943	147,505
At Static Dispensaries	49,910	39,813	50,283	140,006
By Travelling Dispensaries	20,644	11,174	18,426	50,244
Total ..	126,383	95,720	115,652	337,755
PERLIS				
At Hospitals	6,108	5,649	6,144	17,901
At Static Dispensaries	6,770	4,648	7,578	18,996
By Travelling Dispensaries	828	323	1,812	2,963
Total ..	13,706	10,620	15,534	39,860
PENANG				
At Hospitals	45,725	28,878	30,762	105,365
At Static Dispensaries	18,763	25,067	33,067	76,897
By Travelling Dispensaries	18,716	15,722	25,925	60,363
Total ..	83,204	69,667	89,754	242,625
PERAK				
At Hospitals	108,457	81,906	83,901	274,264
At Static Dispensaries	56,506	27,574	33,335	117,415
By Travelling Dispensaries:				
(i) Road	53,354	39,836	51,938	145,128
(ii) River	11,801	5,121	9,543	26,465
Total ..	230,118	154,437	178,717	563,272
SELANGOR				
At Hospitals	77,471	51,802	58,629	187,902
At Static Dispensaries	68,350	45,318	72,491	186,159
By Travelling Dispensaries	11,697	9,770	15,179	36,646
Total ..	157,518	106,890	146,299	410,707
NEGRI SEMBILAN				
At Hospitals	39,845	24,490	29,190	93,525
At Static Dispensaries	28,819	20,404	24,713	73,936
By Travelling Dispensaries	19,028	16,876	19,625	55,529
Total ..	87,692	61,770	73,528	222,990

TABLE 5—(*cont.*)SUMMARY OF OUT-PATIENTS TREATED IN EACH STATE AND SETTLEMENT—(*cont.*)

Hospitals and Dispensaries	Adult Males	Adult Females	Children under 10 years	Total
MALACCA				
At Hospitals	13,067	11,234	9,600	33,901
At Static Dispensaries	18,021	8,467	11,808	38,296
By Travelling Dispensaries	15,806	16,821	25,389	58,016
Total ..	46,894	36,522	46,797	130,213
JOHORE				
At Hospitals	46,079	22,004	29,230	97,313
At Static Dispensaries	66,003	26,904	46,826	139,733
By Travelling Dispensaries:				
(i) Road	37,916	26,475	47,576	111,967
(ii) River	3,847	2,659	3,662	10,168
Total ..	153,845	78,042	127,294	359,181
KELANTAN				
At Hospitals	17,599	9,273	7,892	34,764
At Static Dispensaries	24,802	12,898	15,811	53,511
By Travelling Dispensaries:				
(i) Road	18,527	12,147	44,311	74,985
(ii) River	5,075	3,553	4,607	13,235
Total ..	66,003	37,871	72,621	176,495
TRENGGANU				
At Hospitals	26,768	15,072	19,582	61,422
At Static Dispensaries	17,238	11,818	17,581	46,637
By Travelling Dispensaries:				
(i) Road	24,868	17,676	25,668	68,212
(ii) River	2,983	1,967	2,902	7,852
Total ..	71,857	46,533	65,733	184,123
PAHANG				
At Hospitals	51,409	33,271	44,123	128,803
At Static Dispensaries	15,855	8,943	13,464	38,262
By Travelling Dispensaries:				
(i) Road	12,976	8,773	11,150	32,899
(ii) River	11,711	7,805	9,466	28,982
Total ..	91,951	58,792	78,203	228,946

TABLE 6
OUT-PATIENTS (FIXED DISPENSARIES)
RETURN OF DISEASES FOR THE YEAR 1954

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
I.—INFECTIVE AND PARASITIC DISEASES						
A 1	001-008	Tuberculosis of respiratory system ..	4,414	1,602	128	6,144
A 2	010	Tuberculosis of meninges and central nervous system	1	..	2	3
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands .. .. ..	..	2	2	4
A 4	012-013	Tuberculosis of bones and joints	23	13	17	53
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue	2	..	6	8
	(b) 015	Tuberculosis of lymphatic system	33	53	35	121
	(c) 016	Tuberculosis of genito-urinary system	2	..	..	2
	(d) 017	Tuberculosis of adrenal glands	5	1	3	9
	(e) 018	Tuberculosis of other organs	16	5	4	25
	(f) 019	Disseminated tuberculosis .. ..	..	..	1	1
A 6	020	Congenital syphilis	1	1	41	43
A 7	(a) 021.0-021.1	Primary syphilis	147	40	..	187
	(b) 021.2	Secondary syphilis	687	424	3	1,114
	(c) 021.3	Early syphilis, relapse following treatment	4	2	..	6
	(d) 021.4	Early syphilis (unspecified stage)	28	12	..	40
A 8	024	Tabes dorsalis	4	..	..	4
A 9	025	General paralysis of insane .. ..	..	1	..	1
A 10	(a) 022	Aneurysm of aorta	2	..	..	2
	(b) 023	Other cardiovascular syphilis	1	..	..	1
	(c) 026	Other syphilis of central nervous system	5	1	..	6
	(d) 027	Tertiary syphilis	190	57	..	247
	(e) 028	Latent syphilis	6	9	..	15
	(f) 029	Syphilis unqualified	164	122	4	290
A 11	(a) 030	Acute or unspecified gonorrhoea	2,334	408	7	2,749
	(b) 031	Chronic gonococcal infection of genito-urinary system	222	22	..	244
	(c) 032	Gonococcal infection of joint	71	7	..	78
	(d) 033	Gonococcal infection of eye	6	2	7	15
	(e) 034-035	Gonococcal infection of other sites	17	1	..	18
A 12	040	Typhoid fever	9	5	3	17
A 13	(a) 041	Paratyphoid fever A, B or C .. ..	..	1	..	1
	(b) 042	Other salmonella infections .. ..	..	..	..	..
A 14	043	Cholera .. ..	..	..	..	..
A 15	044	Brucellosis (undulant fever) .. ..	..	..	..	..
A 16	(a) 045	Bacillary dysentery	104	68	23	195
	(b) 046	Amoebiasis	452	132	111	695
	(c) 047-048	Other protozoal and unspecified forms of dysentery	2,004	1,142	1,034	4,180
A 17	050	Scarlet fever .. ..	..	..	..	..
A 18	051	Streptococcal sore throat	17	8	6	31
A 19	052	Erysipelas	12	6	18	36
A 20	053	Septicaemia and pyaemia	1	2	..	3
A 21	055	Diphtheria	17	29	133	179
A 22	056	Whooping Cough	58	80	4,518	4,656
A 23	057	Meningococcal infections .. ..	..	..	..	..
A 24	058	Plague .. ..	..	..	..	..
A 25	060	Leprosy	302	55	15	372
A 26	(a) 061	Tetanus of the new-born .. ..	..	..	4	4
	(b) —	Tetanus, other forms	1	3	..	4
A 27	062	Anthrax .. ..	..	..	..	..
A 28	080	Acute Poliomyelitis	1	..	..	1
A 29	082	Acute infectious encephalitis .. ..	..	..	..	..
A 30	081	Late effects of acute poliomyelitis and acute infectious encephalitis	1	1	9	11
	083	.. ..	..	..	..	..
A 31	084	Smallpox .. ..	..	..	..	..
A 32	085	Measles	53	27	648	728
A 33	091	Yellow fever .. ..	..	..	..	..
A 34	092	Infectious hepatitis .. ..	..	..	..	..
A 35	094	Rabies .. ..	..	..	..	..
A 36	(a) 100	Louse-borne epidemic typhus .. ..	..	..	..	..
	(b) 101	Flea-borne endemic typhus (murine) .. ..	..	..	..	..
		Carried forward ..	11,472	4,383	6,817	22,672

TABLE 6—(cont.)
OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	11,472	4,383	6,817	22,672
I.—INFECTIVE AND PARASITIC DISEASES—(cont.)						
A 37	(c) 104	Tick-borne epidemic typhus				
	(d) 105	Mite-borne typhus				
	(e) 102-103	Other and unspecified typhus	1	..	..	1
	106-108 }	Vivax malaria (benign tertian)	2,489	1,065	1,214	4,768
		Malariae malaria (quartan)	60	30	20	110
		Falciparum malaria (malignant tertian)	2,662	1,017	1,340	5,019
		Mixed malaria infections	116	37	36	189
		Blackwater fever				
		Other and unspecified forms of malaria ..	31,556	18,115	19,844	69,515
A 38	(a) 110	Schistosomiasis vesical (S. haematobium)				
	(b) 111	Schistosomiasis intestinal (S. Mansoni) ..				
	(c) 112	Schistosomiasis Pulmonary (S. japonicum) ..				
	(d) 114	Other and unspecified Schistosomiasis ..				
A 39	123.0	Hydatid disease		1	..	1
A 40	(a) 127	Onchocerciasis				
	(b) —	Loiasis				
	(c) —	Filariasis (bancrofti)	28	3	..	31
A 41	(d) 123.3	Other filariasis	100	49	13	162
A 42	(a) 125	Ankylostomiasis	4,974	3,237	5,005	13,216
	(b) 126	Tape worm (infestation) and other cestode infestation	1			1
	(c) 130.0	Ascariasis	14,108	12,919	52,674	79,701
	(d) 130.3	Guinea worm (dracunculosis)				
	(e) 124	Other trematode infestation	17	9	61	87
	(f) 128	Trichiniasis	10	4	22	36
A 43	130.1-130.2	Other diseases due to helminths	1,798	2,067	6,109	9,974
		Chancroid	30	4	11	45
		Lymphogranuloma venereum	12	1	..	13
		Granuloma inguinale, venereal	19	7	..	26
		Other and unspecified venereal diseases ..	52	16	..	68
		Food poisoning infection and intoxication	36	22	2	60
		Tularaemia				
		Gas gangrene				
		(a) Glanders				
		(b) Melioidosis				
	(i) 070	(c) Other bacterial diseases				
	(j) 071	Vincent's infection	2	..	..	2
	(k) 072	Relapsing fever				
		Leptospirosis icterohaemorrhagica (Weil's disease)				
	(l) 073	Yaws	11,389	9,410	11,722	32,521
	(m) 086	Rubella				
	(n) 087	Chickenpox				
	(o) 088	Herpes Zoster	517	136	551	1,204
	(p) 089	Mumps	667	259	130	1,056
	(q) 090	Dengue	1,052	564	1,349	2,965
	(r) 093	Glandular fever	11	6	7	24
	(s) 095	Trachoma	307	431	104	842
	(t) 096.7	Sandfly fever				
	(u) 120	Leishmaniasis				
	(v) 121	(a) Trypanosomiasis gambiensis				
		(b) Trypanosomiasis rhodesiensis				
		(c) Other and unspecified trypanosomiasis				
	(w) 131	Dermatophytosis	1,492	691	616	2,799
	(x) 135	Scabies	20,375	10,680	28,917	59,972
		<i>Carried forward</i> ..	105,353	65,164	136,564	307,081

TABLE 6—(cont.)
OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	105,353	65,164	136,564	307,081
		I.—INFECTIVE AND PARASITIC DISEASES—(cont.)				
(y)	054, 074 096.1-096.6 096.8, 096.9 122 132-134 136-138	All other diseases classified as infective and parasitic	3,134	2,105	2,579	7,818
		II.—NEOPLASMS				
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx	15	15	..	30
A 45	150	Malignant neoplasm of oesophagus ..	3	1	..	4
A 46	151	Malignant neoplasm of stomach	16	14	..	30
A 47	(u) 152	Malignant neoplasm of small intestine, including duodenum				
	(b) 153	Malignant neoplasm of large intestine, except rectum				
A 48	154	Malignant neoplasm of rectum	4	1	..	5
A 49	161	Malignant neoplasm of larynx	1	1	..	2
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	1	1	..	2
A 51	170	Malignant neoplasm of breast .. ..	..	13	..	13
A 52	171	Malignant neoplasm of cervix uteri ..	..	23	..	23
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus .. ..	..	3	..	3
A 54	177	Malignant neoplasm of prostate	3	..	..	3
A 55	190-191	Malignant neoplasm of skin	36	6	..	42
A 56	196-197	Malignant neoplasm of bone and connective tissue	7	..	..	7
A 57	(a) 155-156	Malignant neoplasm of liver	14	4	..	18
	(b) 157	Malignant neoplasm of pancreas				
	(c) 158	Malignant neoplasm of peritoneum				
	(d) 159	Malignant neoplasm of unspecified digestive organs .. .. .. ..	..	1	..	1
	(e) 175-176	Malignant neoplasm of other and unspecified female genital organs .. ..	..	1	..	1
	(f) 178-179	Malignant neoplasm of other and unspecified male genital organs	3	..	..	3
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs	16	10	..	26
	(h) 160 164-165 192-195 198-199	Malignant neoplasm of all other and unspecified sites	102	70	3	175
A 58	204	Leukaemia and Aleukaemia	2	..	..	2
A 59	(a) 200	Lymphosarcoma and reticulosarcoma ..				
	(b) 201	Hodgkin's disease	1	3	1	5
	(c) 202-203	Other neoplasm of lymphatic and haematoopoietic system	16	3	2	21
	(d) 205	Mycosis fungoides	656	266	287	1,209
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system	6	8	..	14
	(b) 217	Benign neoplasm of other female genital organs .. ..	..	4	..	4
	(c) 218	Benign neoplasm of other male genital organs	2	..	..	2
	(d) 212-216 219-229	Benign neoplasm of other and unspecified organs and tissue	89	78	16	183
	(e) 230	Neoplasm of unspecified nature of digestive organs				
	(f) 233-235	Neoplasm of unspecified nature of other female genital organs .. .. ..	..	7	..	7
	(g) 231-232 236-239	Neoplasm of unspecified nature of other unspecified organs	117	34	14	165
		<i>Carried forward</i> ..	109,597	67,836	139,466	316,899

TABLE 6—(cont.)
OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	109,597	67,836	139,466	316,899
		III.—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES AND				
		IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS				
A 61	250-251	Nontoxic goitre	45	214	2	261
A 62	252	Thyrotoxicosis with or without goitre	39	99	1	139
A 63	260	Diabetes mellitus	1,402	800	1	2,203
A 64	(a) 280	Beri Beri	2,167	1,723	243	4,133
	(b) 281	Pellagra	2	1	..	3
	(c) 282	Scurvy	5	4	12	21
	(d) 283-284	Rickets .. .. .. .. ..	..	..	55	55
	(e) 285	Osteomalacia	2	..	..	2
	(f) 286.0	(a) Sprue	29	20	..	49
	286.5	(b) Malnutrition	1,520	2,362	4,108	7,990
	286.1-286.4	(c) Other deficiency states	5,774	7,083	3,795	16,652
A 65	(a) 290	Pernicious and other hyperchromic anaemias	95	218	32	345
	(b) 291	Iron deficiency anaemias (hypochromic)	5,758	10,928	2,875	19,561
	(c) 292-293	Other specified and unspecified anaemias	17,492	35,114	10,988	63,594
A 66	(a) 241	Asthma	11,785	7,477	7,581	26,843
	(b) 240	Angioneurotic oedema, urticaria and other allergic disorders	2,914	1,997	1,162	6,073
	242-245	Myxoedema and cretinism	1	..	1	2
	(c) 253	Other diseases of thyroid gland	14	67	2	83
	(d) 254	Disorders of pancreatic internal secretion other than diabetes mellitus .. .. .. .. ..	..	..	..	..
	(e) 270	Diseases of parathyroid gland	4	6	..	10
	(f) 271	Diseases of pituitary gland .. .. .. .. ..	..	..	..	..
	(g) 272	Diseases of thymus gland .. .. .. .. ..	..	..	..	2
	(h) 273	Diseases of adrenal gland	1	1	..	..
	(i) 274	Other diseases of endocrine glands .. .. .. .. ..	..	..	..	..
	(j) 275-277	Gout	10	47	5	62
	(k) 288	Other metabolic diseases	20	2	..	22
	(l) 287,289	Polycythaemia	335	343	61	739
	(m) 294	Haemophilia	1	..	3	4
	(n) 295	Purpura and other haemorrhagic conditions .. .. .. .. ..	..	..	..	..
	(o) 296	Agranulocytosis	5	3	..	8
	(p) 297	Diseases of spleen	8	2	5	15
	(q) 298	Other diseases of blood and blood-forming organs	30	27	15	72
		V.—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS				
A 67	(a) 300	Schizophrenic disorders (dementia praecox) .. .. .. .. ..	..	..	..	..
	(b) 301	Maniac-depressive reaction .. .. .. .. ..	..	..	..	..
	(c) 302	Involutional melancholia .. .. .. .. ..	..	..	..	..
	(d) 303	Paranoia and paranoid states .. .. .. .. ..	..	..	..	..
	(e) 304	Senile psychoses .. .. .. .. ..	..	..	..	..
	(f) 305-309	Other and unspecified psychoses	12	5	..	17
A 68	(a) 311	Hysterical reaction	31	6	..	37
	(b) 314	Neurotic-depressive reaction	22	63	..	85
	(c) 322	Alcoholism	57	32	..	89
	(d) 323	Other drug addiction	674	7	..	681
	(e) 310	..	210	2	..	212
	312-313	..	..	..	..	..
	315-321	..	..	..	..	..
	324	Other psychoneuroses and disorders of personality	14	32	2	48
	326	..	..	..	..	..
A 69	325	Mental deficiency	29	15	18	62
		<i>Carried forward</i> ..	160,104	136,536	170,433	467,073

TABLE 6—(cont.)

OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	160,104	136,536	170,433	467,073
VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS						
A 70	(a) 331	Cerebral haemorrhage	2	..	..	2
	(b) 332	Cerebral embolism and thrombosis ..	6	5	..	11
	(c) 330 }	Other vascular lesions affecting central nervous system	13	2	..	15
A 71	333-334 }	Non-meningococcal meningitis	1	..	..	1
A 72	340	Multiple sclerosis	1	14	16	31
A 73	345	Epilepsy	378	229	108	715
A 74	(a) 353	Conjunctivitis and ophthalmia	27,171	15,794	20,453	63,418
	(b) 370	Other inflammatory diseases of eye ..	3,354	2,280	1,782	7,416
A 75	371-379	Cataract	829	534	44	1,407
A 76	385	Glaucoma	68	54	16	138
A 77	(a) 387	Otitis externa	7,073	3,968	10,056	21,097
	(b) 390	Otitis media and mastoiditis	4,110	2,404	6,787	13,301
	(c) 394	Other inflammatory diseases of ear ..	4,171	2,663	5,990	12,824
A 78	(a) 380-384	All other diseases and conditions of eye ..	9,137	4,673	2,583	16,393
	(b) 386,388 }	Intracranial and intraspinal abscess ..				
	(c) 389	Encephalitis, myelitis and encephalomyelitis	4	..	..	4
	(d) 342	Paralysis agitans	8	3	..	11
	(e) 343	Other cerebral paralysis	73	18	3	94
	(f) 350	Motor neurone disease and muscular atrophy	14	7	..	21
	(g) 352	Other diseases of spinal cord	2	..	..	2
	(h) 356	Other and unspecified forms of neuralgia and neuritis	36,538	26,536	2,440	65,514
	(i) 357	Other diseases of cranial nerves	54	20	..	74
	(j) 366	Diseases of peripheral autonomic nervous system	147	158	7	312
	(k) 367	All other diseases of the nervous system and sense organs	3,744	3,204	347	7,295
VII.—DISEASES OF THE CIRCULATORY SYSTEM						
A 79	(a) 400	Rheumatic fever without mention of heart involvement	884	212	25	1,121
	(b) 401	Rheumatic fever with heart involvement ..	3	20	4	27
	(c) 402	Chorea .. ..	..	1	..	1
A 80	410-413	Diseases of valves specified as rheumatic	24	12	6	42
	(b) 414	Other endocarditis specified as rheumatic .. ..	..	1	..	1
	(c) 415	Other myocarditis specified as rheumatic .. ..	..		
	(d) 416	Other heart disease specified as rheumatic	19	9	3	31
A 81	(a) 420	Arteriosclerotic heart disease, including coronary disease	10	1	..	11
	(b) 421	Chronic endocarditis not specified as rheumatic	20	13	..	33
	(c) 422	Other myocardial degeneration	82	30	..	112
A 82	(a) 430	Acute and subacute endocarditis	4	4	..	8
	(b) 431	Acute myocarditis	106	46	3	155
	(c) 432	Acute pericarditis	13	2	1	16
	(d) 433	Functional disease of heart	384	258	4	646
	(e) 434	Other and unspecified diseases of heart	665	457	47	1,169
A 83	440-443	Hypertension with heart disease	132	59	..	191
A 84	444-447	Hypertension without mention of heart	1,408	955	18	2,381
A 85	(a) 450	General arteriosclerosis	10	6	..	16
	(b) 451	Aortic aneurysm specified as non-syphilitic and dissecting aneurysm	1	..	..	1
		<i>Carried forward</i> ..	260,767	201,188	221,176	683,131

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	260,767	201,188	221,176	683,131
VII.—DISEASES OF THE CIRCULATORY SYSTEM—(cont.)						
A 86	(c) 452	Other aneurysm, except of heart and aorta ..	1	..	..	1
	(d) 453	Peripheral vascular disease ..	1	..	..	1
	(e) 454	Arterial embolism and thrombosis ..	3	..	..	3
	(f) 455	Gangrene of unspecified cause ..	13	2	..	15
	(g) 456	Other disease of arteries ..	25	19	2	46
	(a) 460,462	Varicose veins ..	273	182	..	455
	(b) 461	Haemorrhoids ..	2,557	935	31	3,523
	(c) 463-464	Phlebitis and thrombophlebitis ..	68	33	6	107
	(d) 465	Pulmonary embolism and infarction ..				
	(e) 466	Other venous embolism and thrombosis ..	2	2	..	4
	(f) 467	Other diseases of circulatory system ..	25	8	6	39
	(g) 468	(a) Adenitis ..	2,347	1,031	1,719	5,097
		(b) Lymphadenitis ..	269	103	207	579
		(c) Other diseases of lymph nodes and lymph channels ..	65	22	19	106
VIII.—DISEASES OF THE RESPIRATORY SYSTEM						
A 87	(a) 470	Acute nasopharyngitis (common cold) ..	40,664	24,451	45,974	111,089
	(b) 471	Acute sinusitis ..	990	612	89	1,691
	(c) 472	Acute pharyngitis ..	5,812	3,810	3,039	12,661
	(d) 473	Acute tonsillitis ..	8,849	6,456	10,095	25,400
A 88	(e) 474	Acute laryngitis and tracheitis ..	745	455	433	1,633
	(f) 475	Other acute upper respiratory infections ..	662	463	465	1,590
A 89	(a) 480	Influenza with pneumonia ..	95	109	101	305
	(b) 481	Influenza with other respiratory manifestations, and influenza unqualified ..	48,009	19,327	24,414	91,750
A 90	(c) 482	Influenza with digestive manifestations, but without respiratory symptoms ..	3,138	1,214	1,649	6,001
	(d) 483	Influenza with nervous manifestations, but without digestive or respiratory symptoms ..				
A 91	490	Lobar pneumonia ..	1,270	472	625	2,367
A 92	491	Broncho-pneumonia ..	169	118	179	466
A 93	492-493	Primary atypical, other and unspecified pneumonia ..	145	123	2,222	2,490
A 94	500	Acute bronchitis ..	184	73	251	508
A 95	(a) 501	Bronchitis unqualified ..	20,631	13,102	38,606	72,339
A 96	(b) 502	Chronic bronchitis ..	67,816	43,832	98,902	210,550
A 97	510	Hypertrophy of tonsils and adenoids ..	8,406	4,690	3,288	16,384
A 98	(a) 518	Empyema ..	4	..	106	110
	(b) 521	Abscess of lung ..	11	1	..	12
A 99	519	Pleurisy ..	4	1	..	5
A 100	517	Other diseases of upper respiratory tract ..	175	71	7	253
A 101	520	Spontaneous pneumothorax ..	250	193	118	561
A 102	522	Pulmonary congestion and hypostasis ..				
A 103	525	Other chronic interstitial pneumonia ..				
A 104	523	Pneumoconiosis ..				
A 105	526	Bronchiectasis ..	105	71	48	224
A 106	527	All other respiratory diseases ..	2,839	1,790	2,396	7,025
IX.—DISEASES OF THE DIGESTIVE SYSTEM						
A 107	(a) 530	Dental caries ..	9,674	5,683	6,763	22,120
	(b) 531-535	(a) Gingivitis ..	484	307	217	1,008
		(b) Pyorrhoea ..	857	557	132	1,546
		(c) Other diseases of teeth and supporting structures ..	1,612	967	823	3,402
<i>Carried forward</i> ..			490,016	332,473	464,108	1,286,597

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	490,016	332,473	464,108	1,286,597
IX.—DISEASES OF THE DIGESTIVE SYSTEM—(cont.)						
A 99	540	Ulcer of stomach	741	254	1	996
A 100	541	Ulcer of duodenum	158	30	..	188
A 101	543	Gastritis and duodenitis	20,117	13,811	5,230	39,158
A 102	550-553	Appendicitis	125	50	15	190
A 103		Hernia of abdominal cavity without mention of obstruction	334	16	66	416
(a)		Hernia of abdominal cavity with obstruction	13	1	3	17
(b)		(a) Intussusception .. .. .. ..	..	..	..	..
(c)		(b) Volvulus .. .. .. ..	..	..	..	..
A 104	(a) 571.0	(c) Other intestinal obstruction	4	2	..	6
		Gastro-enteritis and colitis between 4 weeks and 2 years .. .. .. ..	..	..	18,337	18,337
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over	17,361	10,436	14,217	42,014
A 105	(a) 572	Chronic enteritis and ulcerative colitis	135	41	29	205
	(a) 581.0	Cirrhosis of liver without mention of alcoholism	78	30	6	114
	(b) 581.1	Cirrhosis of liver with alcoholism	7	..	..	7
A 106	(a) 584	Cholelithiasis .. .. .. ..	..	1	..	1
	(b) 585	Cholecystitis without mention of calculi	36	18	..	54
A 107	(a) 536	Stomatitis	3,201	3,079	7,087	13,367
	(b) 538	Other diseases of buccal cavity	317	220	330	867
	(c) 539	(a) Functional disorders of oesophagus	1	1	..	2
	(d) 544	(b) Stricture or obstruction of oesophagus	3	3	..	6
	(e) 545	Disorders of function of stomach	10,017	8,564	6,222	24,803
	(f) 573	Other diseases of stomach and duodenum	2,618	2,356	1,144	6,118
	(g) 574	(a) Constipation	28,085	18,115	14,457	60,657
	(h) 575	(b) Other functional disorders of intestines	3,424	2,570	2,210	8,204
	(i) 576	Anal fissure and fistula	92	10	7	109
	(j) 578	Abscess of anal and rectal regions	94	13	14	121
	(k) 580	Peritonitis	7	4	2	13
	(l) 583	Other diseases of intestines and peritoneum	29	9	61	99
	(m) 586	(a) Acute yellow atrophy of liver	8	1	2	11
	(n) 587	(b) Degeneration of liver .. .. .. ..	..	..	..	..
	(o) 537, 542 } 577, 582 }	(c) Hepatitis	906	404	73	1,383
		Other diseases of liver	83	28	15	126
		Other diseases of gall-bladder and biliary ducts	77	33	13	123
		Diseases of pancreas	3	1	2	6
		Other diseases of digestive system	5,080	5,594	2,601	13,275
X.—DISEASES OF THE GENITO-URINARY SYSTEM						
A 108	590	Acute nephritis	297	162	125	584
A 109	(a) 591	Nephritis with oedema, including nephrosis	136	76	59	271
	(b) 592	Chronic nephritis	352	189	52	593
	(c) 593	Nephritis not specified as acute or chronic	1,189	941	389	2,519
	(d) 594	Other renal sclerosis	3	1	..	4
A 110	600	Infections of kidney	349	346	62	757
A 111	(a) 602	Calculi of kidney and ureter	76	20	1	97
	(b) 604	Calculi of other parts of urinary system	15	4	5	24
A 112	610	Hyperplasia of prostate	12	..	..	12
A 113	620-621	Diseases of breast .. .. .. ..	..	366	14	380
A 114		Other diseases of kidney and ureter	323	233	42	598
		Cystitis	1,591	1,098	101	2,790
		Other diseases of bladder	140	75	16	231
		Stricture of urethra	382	31	9	422
		Other diseases of urethra	1,494	459	113	2,066
		<i>Carried forward</i> ..	589,529	402,169	537,240	1,528,938

TABLE 6—(cont.)
OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	589,529	402,169	537,240	1,528,938
X.—DISEASES OF THE GENITO-URINARY SYSTEM—(cont.)						
(f)	612	Other diseases of prostate	71	..	.. 8	71
(g)	613	Hydrocele	261	..	.. 51	269
(h)	614	Orchitis and epididymitis	805	..	.. 117	856
(i)	617	Other diseases of male genital organs	898	..	.. 117	1,015
(j)	622	Acute salpingitis and oophoritis .. .. ..	..	220	..	220
(k)	625	Other diseases of ovary and fallopian tube .. .. ..	..	125	..	125
(l)	626	Diseases of parametrium and pelvic-peritoneum (female) .. .. ..	..	39	..	39
(m)	630	Infective disease of uterus, vagina and vulva .. .. ..	..	712	4	716
(n)	633	Other diseases of uterus .. .. ..	..	806	..	806
(o)	634	Disorders of menstruation .. .. ..	..	10,614	..	10,614
(p)	637	Other diseases of female genital organs .. .. ..	..	1,425	25	1,450
(q)	601					
	607, 611					
	615-616					
	623-624					
	631-632					
	635-636	All other diseases of the genito-urinary system	1,138	924	233	2,295
XI.—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILD-BIRTH AND THE PUERPERIUM						
A 115	(a)	Pyelitis and pyelonephritis of pregnancy .. .. ..	..	411	..	411
	(b)	Other infections of genito-urinary tract during pregnancy .. .. ..	..	26	..	26
	(c)	Sepsis of childbirth and the puerperium .. .. ..	..	14	..	14
	(d)	Puerperal phlebitis and thrombosis .. .. ..	..	1	..	1
	(e)	Puerperal pulmonary embolism .. .. ..	..	..
A 116	(a)	(a) Albuminuria of pregnancy .. .. ..	..	900	..	900
	(b)	(b) Eclampsia of pregnancy .. .. ..	..	11	..	11
	(c)	(c) Hyperemesis gravidarum .. .. ..	..	628	..	628
	(d)	(d) Acute yellow atrophy of liver .. .. ..	..	..
	(e)	(e) Other toxæmias of pregnancy .. .. ..	..	293	..	293
	(b)	Abortion with toxæmia, without mention of sepsis .. .. ..	..	8	..	8
	(c)	Puerperal eclampsia .. .. ..	..	..
	(d)	Other forms of puerperal toxæmia .. .. ..	..	6	..	6
A 117	(a)	Placenta praevia .. .. ..	..	1	..	1
	(b)	Other haemorrhage of pregnancy .. .. ..	..	40	..	40
	(c)	Delivery complicated by placenta praevia or antepartum haemorrhage .. .. ..	..	3	..	3
	(d)	Delivery complicated by retained placenta .. .. ..	..	9	..	9
	(e)	Delivery complicated by other postpartum haemorrhage .. .. ..	..	3	..	3
A 118		Abortion without mention of sepsis or toxæmia .. .. ..	..	..
A 119		Abortion with sepsis .. .. ..	..	1,158	..	1,158
A 120	(a)	Ectopic pregnancy .. .. ..	..	44	..	44
	(b)	Anæmia of pregnancy .. .. ..	..	23	..	23
	(c)	Pyrexia of unknown origin during the puerperium .. .. ..	..	7,117	..	7,117
	(d)	Puerperal psychoses .. .. ..	..	17	..	17
	(e)	Mastitis and other disorders of lactation .. .. ..	..	6	..	6
	(f)		..	318	..	318
	688.1					
	689					
	647-649					
	673-680					
	687					
	688.0					
	688.2-688.3	Other complications of pregnancy, child-birth and the puerperium .. .. ..	..	5,304	..	5,304
	(g)	Delivery without complications .. .. ..	..	4,295	..	4,295
	660	<i>Carried forward</i> ..	592,702	437,670	537,678	1,568,050

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	592,702	437,670	537,678	1,568,050
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE AND				
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT				
A 121	(a) 690	Boil and carbuncle	15,920	6,956	13,896	36,772
	(b) 691-693	Cellulitis and abscess	17,317	8,352	11,970	37,639
	(c) 694-698	Other infections of skin and subcutaneous tissue	24,154	11,389	15,803	51,346
A 122	(a) 720	Acute arthritis due to pyogenic organisms	51	20	..	71
	(b) 721	Acute nonpyogenic arthritis	78	75	4	157
	(c) 722	Rheumatoid arthritis and allied conditions	413	168	10	591
	(d) 723-725	Arthritis specified and unspecified	5,397	3,250	115	8,762
A 123	(a) 726	Muscular rheumatism	7,973	3,102	106	11,181
	(b) 727	Rheumatism unspecified	7,863	5,247	285	13,395
A 124	730	Osteomyelitis and periostitis	307	180	56	543
A 125	(a) 737	Ankylosis of joint	4	4	..	8
	(b) 745-749	Other acquired musculoskeletal deformities	5	2	5	12
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	27,914	11,342	19,476	58,732
	(b) 700-714 {	All other diseases of skin	37,705	23,035	28,583	89,323
	716 }					
	(c) 731-736 {	All other diseases of musculoskeletal system	2,413	1,525	242	4,180
	738-744 }					
		XIV.—CONGENITAL MALFORMATIONS				
A 127	751	Spina bifida and meningocele				
A 128	754	Congenital malformations of circulatory system	2	..	4	6
A 129	(a) 750	Monstrosity				
	(b) 752	Congenital hydrocephalus .. .. ..	..	..	1	1
	(c) 753	Other congenital malformations of nervous system and sense organs				
	(d) 755	Cleft palate and harelip	7	7	57	71
	(e) 756	(a) Congenital hypertrophic pyloric stenosis .. .. ..	..	..	1	1
		(b) Imperforate anus .. .. ..	..	..	5	5
		(c) Other congenital malformations of digestive system .. .. ..	..	..	4	4
	(f) 757	Congenital malformations of genito-urinary system .. .. ..	..	..	3	3
	(g) 758	Congenital malformations of bone and joint .. .. ..	..	..	5	5
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified ..	7	3	16	26
		XV.—CERTAIN DISEASES OF EARLY INFANCY				
A 130	(a) 760	Intracranial and spinal injury at birth ..				
	(b) 761	Other birth injury				
A 131	762	Postnatal asphyxia and atelectasis ..				
A 132	(a) 764	Diarrhoea of newborn .. .. ..	..	..	185	185
	(b) 765	Ophthalmia neonatorum .. .. ..	..	..	7	7
	(c) 763	Pneumonia of newborn .. .. ..	..	..	1	1
	(d) 766	Pemphigus neonatorum .. .. ..	..	..
	(e) 767	Umbilical sepsis .. .. ..	..	..	137	137
	(f) 768	Other sepsis of newborn .. .. ..	..	..	2	2
A 133	770	Haemolytic disease of newborn ..				
		<i>Carried forward</i> ..	740,232	512,327	628,657	1,881,216

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	740,232	512,327	628,657	1,881,216
XV.—CERTAIN DISEASES OF EARLY INFANCY—(cont.)						
A 134	769	All other defined diseases of early infancy ..	..	..	39	39
A 135	771-772 } (a) 773 (b) 774 (c) 775-776	Congenital debility .. .. ..	..	..	4	4
		Premature birth .. .. ..	..	..	1	1
		Other ill-defined diseases peculiar to early infancy and immaturity unqualified ..	..	..	141	141
XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS						
A 136	794	Senility without mention of psychoses ..	3,021	2,562	..	5,583
A 137	780	Infantile convulsions	16,309	9,056	186	186
	788.8	Pyrexia of unknown origin			16,862	42,227
	793	Observation, without need for further medical care	3,980	1,576	390	5,946
	781-787 } 789-792 795 788.1-788.7 788.9 } (a) Malingering	(a) Malingering	102	85	2	189
		(b) Sudden death (cause unknown) ..				
		(c) Found dead (cause unknown) ..				
		(d) Other ill-defined and unknown causes of morbidity and mortality	2,286	1,604	997	4,887
XVII.—ACCIDENTS, POISONINGS AND VIOLENCE						
“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)						
AE 138	E 810-E 835	Motor vehicle accidents	3,166	879	772	4,817
AE 139	E 800-E 802	Railway accidents	123	15	3	141
	E 850-E 858	Water transport accidents	36	3	4	43
	E 860-E 866	Aircraft accidents	2	..	1	3
	E 840-E 845	Other transport accidents	1,451	614	892	2,957
AE 140	E 870	Accidental poisoning by morphia and other opium derivatives	2	..	1	3
	E 874	Accidental poisoning by other analgesic and soporific drugs				
	E 878	Accidental poisoning by other and unspeci- fied drugs	1	..	..	1
	E 883	Accidental poisoning by corrosive aro- matics, acids and caustic alkalies				
	E 884	Accidental poisoning by mercury and its compounds	11	8	2	21
	E 885	Accidental poisoning by lead and its compounds				
	E 886	Accidental poisoning by arsenic and anti- mony and their compounds	3	..	..	3
	E 888	Accidental poisoning by other and unspeci- fied solid or liquid substances	5	1	9	15
	E890-E895 } (j) E871-E873 E875-E877 E879-E882 E887 } Other accidental poisoning	Accidental poisoning by gases and vapours	20	3	14	37
AE 141	E 900-E 904	Accidental falls	25,215	8,765	15,046	49,026
AE 142	E 912	Accident caused by machinery	423	125	77	625
		<i>Carried forward</i> ..	796,388	537,623	664,100	1,998,111

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	796,388	537,623	664,100	1,998,111
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
AE 143	E 916	Accident caused by fire and explosion of combustible material	388	148	345	881
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radiation	727	503	1,111	2,341
AE 145	E 919	Accident caused by firearm	70	3	..	73
AE 146	E 929	Accidental drowning and submersion	29	4	17	50
AE 147 (a)	E 913	Accidents caused by cutting or piercing instruments	17,664	6,270	8,608	32,542
(b)	E 914	Accidents caused by electric current	15	4	5	24
(c)	E 920	Foreign body entering eye and adnexa	813	242	325	1,380
(d)	E 923	Foreign body entering other orifice	505	302	583	1,390
(e)	E 925	Accidental mechanical suffocation	9	2	1	12
(f)	E 926	Lack of care of infants under 1 year of age .. .. ..	..	..	10	10
(g)	E 927	Accidents caused by bites and stings of venomous animals and insects	3,160	1,440	1,420	6,020
(h)	E 928	Other accidents caused by animals	2,635	1,297	1,835	5,767
(i)	E 931	Excessive heat	4	1	2	7
(j)	E 932	Excessive cold	1	1	..	2
(k)	E 933	Hunger, thirst and exposure .. .. ..	..	..	..	..
(l)	E 934	Cataclysm .. .. ..	..	..	..	..
(m)	E 935	Lightning .. .. ..	..	..	..	..
(n)	E 936	(a) Accidents in mines and quarries	153	15	..	168
		(b) Agricultural and forestry accidents	246	66	39	351
		(c) Accidental injury by crushing or landslide	591	95	115	801
(o)	E 940	(d) Other and unspecified accidents	2,721	957	1,274	4,952
(p)	E 941-E 942	Generalized vaccinia following vaccination	227	94	877	1,198
		Other complications of smallpox vaccination .. .. ..	..	..	8	8
(q)	E 950-E 953	Accidents due to medical or surgical intervention .. .. ..	..	..	..	..
(r)	E 955-E 959	.. .. ..	..	..	..	..
(s)	E 954	Anaesthetic accidents .. .. ..	..	..	..	..
	E 910-E 911	.. .. ..	..	..	..	..
	E 915	.. .. ..	..	..	..	..
	E 921-E 922	All other accidental causes	3,073	882	1,451	5,406
	E 924-E 930	.. .. ..	..	..	..	..
	E 943-E 946	.. .. ..	..	..	..	..
	E 960-E 965	.. .. ..	..	..	..	..
AE 148 (a)	E 970	Suicide and self-inflicted injury by analgesic and soporific substances	10	7	17	34
(b)	E 971	Suicide and self-inflicted injury by other solid and liquid substances .. .. ..	..	2	..	2
(c)	E 972	Suicide and self-inflicted injury by gases in domestic use .. .. ..	..	..	..	..
(d)	E 973	Suicide and self-inflicted injury by other gases .. .. ..	..	..	..	..
(e)	E 974	Suicide and self-inflicted injury by hanging or strangulation	2	..	..	2
(f)	E 975	Suicide and self-inflicted injury by submersion (drowning)	11	1	6	18
(g)	E 976	Suicide and self-inflicted injury by firearms and explosives .. .. ..	..	..	..	..
(h)	E 977	Suicide and self-inflicted injury by cutting or piercing instruments	7	1	..	8
(i)	E 978	Suicide and self-inflicted injury by jumping from high place .. .. ..	..	..	..	..
(j)	E 979	Suicide and self-inflicted injury by other and unspecified means .. .. ..	..	..	..	..
AE 149 (j)	E 980	Nonaccidental poisoning by another person .. .. ..	..	..	..	..
		<i>Carried forward</i> ..	829,449	549,960	682,149	2,061,558

TABLE 6—(cont.)
 OUT-PATIENTS (FIXED DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	829,449	549,960	682,149	2,061,558
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
AE 150	E 981 E 982 E 983 E 984 E 985 E 990-E 999	Assault by firearms and explosive ..	33	3	..	36
		Assault by cutting or piercing instruments ..	881	321	42	1,244
		Assault by other means	4,676	1,993	342	7,011
		Injury by intervention of police				
		Execution (legal)	15	..	..	15
		Injury resulting from operations of war ..				
		“N” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONING, AND VIOLENCE (NATURE OF INJURY)				
AN 138	N 800-N 804	Fracture of skull	51	11	3	65
AN 139	N 805-N 809	Fracture of spine and trunk	14	4	4	22
AN 140	N 810-N 829	Fracture of limbs	582	120	183	885
AN 141	N 830-N 839	Dislocation without fracture	104	33	35	172
AN 142	N 840-N 848	Sprains and strains of joints and adjacent muscles	5,098	1,257	787	7,142
AN 143	N 850-N 856	Head injury excluding fracture	496	177	205	878
AN 144	N 860-N 869	Internal injury of chest, abdomen and pelvis				
AN 145	N 870-N 908	Laceration and open wounds	7,885	2,360	3,474	13,719
AN 146	N 910-N 929	Superficial injury, contusion and crushing with intact skin surface	4,236	1,112	1,724	7,072
AN 147	N 930-N 936	Effects of foreign body entering through orifice	74	23	73	170
AN 148	N 940-N 949	Burns	1,433	758	1,743	3,934
AN 149	N 960-N 979	Effects of poisons .. .. .. ..	..	2	2	4
AN 150	N 950-N 959 N 980-N 999	All other and unspecified effects of external causes	4,365	2,032	2,187	8,584
		TOTAL ..	859,394	560,166	692,953	2,112,513

TABLE 6—(*cont.*)
 OUT-PATIENTS (FIXED DISPENSARIES)—(*cont.*)
 RETURN OF DISEASES FOR THE YEAR 1954—(*cont.*)

Nationalities	New Cases All Nationalities (including Europeans)			
	Adult Males	Adult Females	Children under 10 years	Total (A)
Europeans	3,597	2,402	1,611	7,610
Eurasians	4,169	2,972	2,591	9,732
Chinese	322,648	253,186	343,519	919,353
Indians	188,611	106,174	123,507	418,292
Malays	321,199	185,428	208,314	714,941
Javanese	12,891	6,202	9,343	28,436
Japanese .. .. .. .. .. .. .. .. ..	..	4	..	4
Others	6,279	3,798	4,068	14,145
	TOTAL ..	859,394	560,166	692,953
				2,112,513

TABLE 7
OUT-PATIENTS (TRAVELLING DISPENSARIES)
RETURN OF DISEASES FOR THE YEAR 1954

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
I.—INFECTIVE AND PARASITIC DISEASES						
A 1	001-008	Tuberculosis of respiratory system ..	99	40	..	139
A 2	010	Tuberculosis of meninges and central nervous system ..				
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands ..				
A 4	012-013	Tuberculosis of bones and joints ..	1	..	..	1
A 5	(a) 014	Tuberculosis of skin and subcutaneous cellular tissue ..				
	(b) 015	Tuberculosis of lymphatic system ..				
	(c) 016	Tuberculosis of genito-urinary system ..				
	(d) 017	Tuberculosis of adrenal glands ..				
	(e) 018	Tuberculosis of other organs ..		..		1
	(f) 019	Disseminated tuberculosis ..		..		1
A 6	020	Congenital syphilis ..				
A 7	(a) 021.0-021.1	Primary syphilis ..				
	(b) 021.2	Secondary syphilis ..				
	(c) 021.3	Early syphilis, relapse following treatment ..				
	(d) 021.4	Early syphilis (unspecified stage) ..				
A 8	024	Tabes dorsalis ..				
A 9	025	General paralysis of insane ..				
A 10	(a) 022	Aneurysm of aorta ..				
	(b) 023	Other cardiovascular syphilis ..				
	(c) 026	Other syphilis of central nervous system ..				
	(d) 027	Tertiary syphilis ..	1	1	..	2
	(e) 028	Latent syphilis ..				
	(f) 029	Syphilis unqualified ..	11	1	1	13
A 11	(a) 030	Acute or unspecified gonorrhoea ..	121	32	..	153
	(b) 031	Chronic gonococcal infection of genito-urinary system ..				
	(c) 032	Gonococcal infection of joint ..	2	2	..	4
	(d) 033	Gonococcal infection of eye ..	17	..	..	17
	(e) 034-035	Gonococcal infection of other sites ..	3	..	..	3
A 12	040	Typhoid fever ..				
A 13	(a) 041	Paratyphoid fever A, B or C ..				
	(b) 042	Other salmonella infections ..				
A 14	043	Cholera ..				
A 15	044	Brucellosis (undulant fever) ..				
A 16	(a) 045	Bacillary dysentery ..	13	11	4	28
	(b) 046	Amoebiasis ..	15	5	8	28
	(c) 047-048	Other protozoal and unspecified forms of dysentery ..	1,106	750	758	2,614
A 17	050	Scarlet fever ..				
A 18	051	Streptococcal sore throat ..		1	..	1
A 19	052	Erysipelas ..	1	..	..	1
A 20	053	Septicaemia and pyaemia ..				
A 21	055	Diphtheria ..				
A 22	056	Whooping Cough ..	8	20	1,066	1,094
A 23	057	Meningococcal infections ..				
A 24	058	Plague ..				
A 25	060	Leprosy ..	6	1	..	7
A 26	(a) 061	Tetanus of the new-born ..				
	(b) —	Tetanus, other forms ..				
A 27	062	Anthrax ..				
A 28	080	Acute Poliomyelitis ..				
A 29	082	Acute infectious encephalitis ..				
A 30	081	Late effects of acute poliomyelitis and acute infectious encephalitis ..		..	2	2
	083					
A 31	084	Smallpox ..		..
A 32	085	Measles ..	22	15	226	263
A 33	091	Yellow fever ..				
A 34	092	Infectious hepatitis ..				
A 35	094	Rabies ..				
A 36	(a) 100	Louse-borne epidemic typhus ..				
	(b) 101	Flea-borne endemic typhus (murine) ..				
		Carried forward ..	1,426	879	2,066	4,371

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	1,426	879	2,066	4,371
I.—INFECTIVE AND PARASITIC DISEASES—(cont.)						
A 37	(c) 104 (d) 105 (e) 102-103 } (f) 106-108 }	Tick-borne epidemic typhus Mite-borne typhus Other and unspecified typhus				
	(a) 110 (b) 111 (c) 112 (d) 114 (e) 115 (f) 113 }	Vivax malaria (benign tertian) Malariae malaria (quartan) Falciparum malaria (malignant tertian) Mixed malaria infections Blackwater fever	14	10	16	40
A 38	116-117 }	Other and unspecified forms of malaria ..	28,110	15,098	17,273	60,481
A 39	123.0	Schistosomiasis vesical (S. haematobium)				
A 40	123.1	Schistosomiasis intestinal (S. Mansoni) ..				
	123.2	Schistosomiasis Pulmonary (S. japonicum) ..				
A 41	123.3	Other and unspecified Schistosomiasis ..				
A 42	125	Hydatid disease				
	127	Onchocerciasis				
	—	Loiasis				
	(c) —	Filariasis (bancrofti ) .. .. ..	.. 31	23	13	67
	(d) —	Other filariasis				
A 43	129	Ankylostomiasis	1,116	887	1,630	3,633
	126	Tape worm (infestation) and other cestode infestation				
	(b) 130.0	Ascariasis	7,040	5,508	28,009	40,557
	(c) 130.3	Guinea worm (dracunculosis)				
	(d) 124	Other trematode infestation	130	91	455	676
	(e) 128	Trichiniasis	2		2	4
	(f) 130.1-130.2	Other diseases due to helminths	2,262	1,586	8,414	12,262
	(a) 036	Chancroid				
	(b) 037	Lymphogranuloma venereum				
	(c) 038	Granuloma inguinale, venereal				
	(d) 039	Other and unspecified venereal diseases	5	1	..	6
	(e) 049	Food poisoning infection and intoxication				
	(f) 059	Tularaemia				
	(g) 063	Gas gangrene				
	(h) 064	(a) Glanders				
		(b) Melioidosis				
		(c) Other bacterial diseases				
	(i) 070	Vincent's infection				
	(j) 071	Relapsing fever				
	(k) 072	Leptospirosis icterohaemorrhagica (Weil's disease)				
	(l) 073	Yaws	7,210	5,109	8,163	20,482
	(m) 086	Rubella				
	(n) 087	Chickenpox	80	53	229	362
	(o) 088	Herpes Zoster	67	43	33	143
	(p) 089	Mumps	105	87	302	494
	(q) 090	Dengue .. .. ..	..	1	4	5
	(r) 093	Glandular fever				
	(s) 095	Trachoma	1	2	..	3
	(t) 096.7	Sandfly fever				
	(u) 120	Leishmaniasis				
	(v) 121	(a) Trypanosomiasis gambiensis				
		(b) Trypanosomiasis rhodesiensis				
		(c) Other and unspecified trypanosomiasis				
	(w) 131	Dermatophytosis	358	336	812	1,506
	(x) 135	Scabies	16,797	9,635	36,186	62,618
		<i>Carried forward</i> ..	64,814	39,379	103,656	207,849

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	64,814	39,379	103,656	207,849
(v)	054, 074 096.1-096.6 096.8,096.9 122 132-134 136-138	I.—INFECTIVE AND PARASITIC DISEASES—(cont.) All other diseases classified as infective and parasitic	3,665	3,623	12,417	19,705
		II.—NEOPLASMS				
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx		1	..	1
A 45	150	Malignant neoplasm of oesophagus .. .. .. ..	..		
A 46	151	Malignant neoplasm of stomach				
A 47	(a) 152	Malignant neoplasm of small intestine, including duodenum				
	(b) 153	Malignant neoplasm of large intestine, except rectum				
A 48	154	Malignant neoplasm of rectum				
A 49	161	Malignant neoplasm of larynx	1	..	..	1
A 50	162-163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary				
A 51	170	Malignant neoplasm of breast				
A 52	171	Malignant neoplasm of cervix uteri				
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus				
A 54	177	Malignant neoplasm of prostate				
A 55	190-191	Malignant neoplasm of skin				
A 56	196-197	Malignant neoplasm of bone and connective tissue				
A 57	(a) 155-156	Malignant neoplasm of liver				
	(b) 157	Malignant neoplasm of pancreas				
	(c) 158	Malignant neoplasm of peritoneum				
	(d) 159	Malignant neoplasm of unspecified digestive organs				
	(e) 175-176	Malignant neoplasm of other and unspecified female genital organs				
	(f) 178-179	Malignant neoplasm of other and unspecified male genital organs				
	(g) 180-181	Malignant neoplasm of kidney, bladder and other urinary organs				
	(h) 160					
	164-165	Malignant neoplasm of all other and unspecified sites	3	..	..	3
	192-195					
	198-199					
A 58	204	Leukaemia and Aleukaemia				
A 59	(a) 200	Lymphosarcoma and reticulosarcoma				
	(b) 201	Hodgkin's disease		1	..	1
	(c) 202-203	Other neoplasm of lymphatic and haemopoietic system				
	(d) 205	Mycosis fungoides	314	180	339	833
A 60	(a) 210-211	Benign neoplasm of buccal cavity, pharynx and digestive system				
	(b) 217	Benign neoplasm of other female genital organs				
	(c) 218	Benign neoplasm of other male genital organs				
	(d) 212-216	Benign neoplasm of other and unspecified organs and tissue				
	219-229					
	(e) 230	Neoplasm of unspecified nature of digestive organs				
	(f) 233-235	Neoplasm of unspecified nature of other female genital organs				
	(g) 231-232	Neoplasm of unspecified nature of other unspecified organs				
	236-239					
		<i>Carried forward</i> ..	68,797	43,184	116,412	228,393

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)					
			Adult Males	Adult Females	Children under 10 years	Total		
		<i>Brought forward</i> ..	68,797	43,184	116,412	228,393		
		III.—ALLERGIC, ENDOCRINE SYSTEM METABOLIC AND NUTRITIONAL DISEASES AND						
		IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS						
A 61	250-251	Nontoxic goitre .. .. .. .. ..	..	1	..	1		
A 62	252	Thyrotoxicosis with or without goitre	21	12	..	33		
A 63	260	Diabetes mellitus	314	331	36	681		
A 64	(a) 280	Beri Beri	3	18	28	49		
	(b) 281	Pellagra .. .. .. .. ..	..	..	38	38		
	(c) 282	Scurvy	14	13	..	27		
	(d) 283-284	Rickets	753	659	2,268	3,680		
	(e) 285	Osteomalacia	1,679	1,513	1,837	5,029		
	(f) 286.0	(a) Sprue	13	11	..	24		
	286.5	(b) Malnutrition	1,851	3,935	1,947	7,733		
	286.6 }	(c) Other deficiency states	10,419	15,886	8,999	35,304		
A 65	(a) 290	Pernicious and other hyperchromic anaemias	3,297	2,047	1,688	7,032		
	(b) 291	Iron deficiency anaemias (hypochromic)	197	184	67	448		
A 66	292-293	Other specified and unspecified anaemias	253	..	..	4		
	(a) 241	Asthma	270	Disorders of pancreatic internal secretion other than diabetes mellitus	1	1	..	2
	(b) 240 }	Angioneurotic oedema, urticaria and other allergic disorders	271	Diseases of parathyroid gland .. .. .. .. ..	..	..	..	..
	242-245 }	Myxoedema and cretinism	272	Diseases of pituitary gland .. .. .. .. ..	..	..	..	..
	(c) 253	Other diseases of thyroid gland	273	Diseases of thymus gland .. .. .. .. ..	..	..	..	..
	(d) 254	Disorders of pancreatic internal secretion other than diabetes mellitus	274	Diseases of adrenal gland .. .. .. .. ..	..	..	..	..
	(e) 270	Other diseases of endocrine glands	275-277	..	..	..	..	..
	(f) 271	Gout	288	..	..	..	..	..
	(g) 272	Other metabolic diseases	287, 289	..	..	..	..	..
	(h) 273	Polycythaemia	294	..	..	..	..	..
	(i) 274	Haemophilia	295	..	..	..	..	..
	(j) 275-277	Purpura and other haemorrhagic conditions	296	..	..	..	..	..
	(k) 288	Agranulocytosis	297	..	..	..	..	..
	(l) 287, 289	Diseases of spleen	298	..	..	..	..	..
	(m) 294	Other diseases of blood and blood-forming organs	299	..	..	..	..	..
	(n) 295	..	..	..	..	..	..	..
	(o) 296	..	..	..	..	..	..	..
	(p) 297	..	..	..	..	..	..	..
	(q) 298	..	..	..	..	..	..	..
	(r) 299	..	..	..	..	..	..	..
		V.—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS						
A 67	(a) 300	Schizophrenic disorders (dementia praecox) .. .. .. .. ..	..	..	..	..	..	..
	(b) 301	Maniac-depressive reaction .. .. .. .. ..	..	..	..	..	..	..
	(c) 302	Involuntary melancholia .. .. .. .. ..	..	..	..	..	..	..
	(d) 303	Paranoia and paranoid states .. .. .. .. ..	..	..	..	..	..	..
	(e) 304	Senile psychoses .. .. .. .. ..	..	..	..	..	..	..
	(f) 305-309	Other and unspecified psychoses .. .. .. .. ..	..	..	..	..	..	..
A 68	(a) 311	Hysterical reaction .. .. .. .. ..	..	..	..	..	..	..
	(b) 314	Neurotic-depressive reaction .. .. .. .. ..	..	..	..	..	..	..
	(c) 322	Alcoholism .. .. .. .. ..	..	..	..	..	..	..
	(d) 323	Other drug addiction .. .. .. .. ..	..	..	..	..	..	..
	(e) 310	..	..	..	..	..	..	..
	312-313 }	Other psychoneuroses and disorders of personality .. .. .. .. ..	..	..	..	..	..	..
	315-321 }	..	..	..	..	..	..	..
A 69	324	Mental deficiency .. .. .. .. ..	..	..	..	..	..	..
	326	..	..	..	..	..	..	..
	325	..	..	..	..	..	..	..
		<i>Carried forward</i> ..	87,517	67,928	133,399	288,844		

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	87,517	67,928	133,399	288,844
VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS						
A 70	(a) 331	Cerebral haemorrhage				
	(b) 332	Cerebral embolism and thrombosis				
	(c) 330	Other vascular lesions affecting central nervous system	1	..	..	1
A 71	333-334 } 340	Non-meningococcal meningitis				
A 72	345	Multiple sclerosis				
A 73	353	Epilepsy	33	6	..	39
A 74	(a) 370	Conjunctivitis and ophthalmia	7,561	6,247	11,573	25,381
	(b) 371-379	Other inflammatory diseases of eye	747	641	1,530	2,918
A 75	385	Cataract	16	18	..	34
A 76	387	Glaucoma				
A 77	(a) 390	Otitis externa	878	662	3,479	5,019
	(b) 391-393	Otitis media and mastoiditis	530	379	2,243	3,152
	(c) 394	Other inflammatory diseases of ear	809	667	2,907	4,383
A 78	(a) 380-384	All other diseases and conditions of eye	1,455	1,479	2,332	5,266
	386,388 } 389	Intracranial and intraspinal abscess	2	1	..	3
	(b) 342	Encephalitis, myelitis and encephalomyelitis				
	(c) 343	Paralysis agitans	1	..	..	1
	(d) 350	Other cerebral paralysis	4	4	..	8
	(e) 352	Motor neurone disease and muscular atrophy	46	41	..	87
	(f) 356	Other diseases of spinal cord				
	(g) 357	Other and unspecified forms of neuralgia and neuritis	13,475	11,022	1,720	26,217
	(h) 366	Other diseases of cranial nerves	48	27	7	82
	(i) 367	Diseases of peripheral autonomic nervous system	24	16	..	40
	(j) 369	All other diseases of the nervous system and sense organs	1,745	1,440	603	3,788
VII.—DISEASES OF THE CIRCULATORY SYSTEM						
A 79	(a) 400	Rheumatic fever without mention of heart involvement	257	160	1	418
	(b) 401	Rheumatic fever with heart involvement	1	..	..	1
	(c) 402	Chorea				
A 80	410-413	Diseases of valves specified as rheumatic				
	(b) 414	Other endocarditis specified as rheumatic				
	(c) 415	Other myocarditis specified as rheumatic				
	(d) 416	Other heart disease specified as rheumatic				
A 81	(a) 420	Arteriosclerotic heart disease, including coronary disease				
	(b) 421	Chronic endocarditis not specified as rheumatic				
	(c) 422	Other myocardial degeneration				
A 82	(a) 430	Acute and subacute endocarditis				
	(b) 431	Acute myocarditis				
	(c) 432	Acute pericarditis				
	(d) 433	Functional disease of heart				
	(e) 434	Other and unspecified diseases of heart	16	1	1	2
A 83	440-443	Hypertension with heart disease				
A 84	444-447	Hypertension without mention of heart	21	23	..	44
A 85	(a) 450	General arteriosclerosis				
	(b) 451	Aortic aneurysm specified as non-syphilitic and dissecting aneurysm				
		<i>Carried forward</i> ..	115,187	90,762	159,796	365,745

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	115,187	90,762	159,796	365,745
VII.—DISEASES OF THE CIRCULATORY SYSTEM—(cont.)						
A 86	(c) 452 (d) 453 (e) 454 (f) 455 (g) 456 (a) 460, 462 (b) 461 (c) 463-464 (d) 465 (e) 466 (f) 467 (g) 468	Other aneurysm, except of heart and aorta Peripheral vascular disease Arterial embolism and thrombosis Gangrene of unspecified cause Other diseases of arteries Varicose veins 13 .. 12 .. 2 25 Haemorrhoids 222 .. 88 .. 2 312 Phlebitis and thrombophlebitis 1 .. 1 2 Pulmonary embolism and infarction Other venous embolism and thrombosis Other diseases of circulatory system .. (a) Adenitis 93 .. 33 .. 59 185 (b) Lymphadenitis 5 .. 1 6 (c) Other diseases of lymph nodes and lymph channels 1 .. 1 .. 1 3				
VIII.—DISEASES OF THE RESPIRATORY SYSTEM						
A 87	(a) 470 (b) 471 (c) 472 (d) 473 (e) 474 (f) 475 (a) 480 (b) 481 (c) 482 (d) 483	Acute nasopharyngitis (common cold) .. 4,664 .. 3,354 .. 5,611 13,629 Acute sinusitis 14 .. 12 .. 7 33 Acute pharyngitis 143 .. 123 .. 95 361 Acute tonsillitis 348 .. 290 .. 610 1,248 Acute laryngitis and tracheitis 101 .. 103 .. 65 269 Other acute upper respiratory infections 8 .. 7 .. 4 19 Influenza with pneumonia 118 .. 121 .. 213 452 Influenza with other respiratory manifestations, and influenza unqualified .. 9,237 .. 6,128 .. 10,549 25,914 Influenza with digestive manifestations, but without respiratory symptoms 165 .. 136 .. 170 471 Influenza with nervous manifestations, but without digestive or respiratory symptoms 420 .. 334 .. 330 1,084				
A 89	490	Lobar pneumonia 10 .. 2 .. 13 25				
A 90	491	Broncho-pneumonia 8 .. 4 .. 74 86				
A 91	492-493	Primary atypical, other and unspecified pneumonia 16 .. 11 .. 13 40				
A 92	500	Acute bronchitis 5,326 .. 4,206 .. 9,974 19,506				
A 93	(a) 501 (b) 502	Bronchitis unqualified 20,923 .. 14,138 .. 28,658 63,719				
A 94	510	Chronic bronchitis 3,903 .. 2,335 .. 1,851 8,089				
A 95	(a) 518 (b) 521	Hypertrophy of tonsils and adenoids 66 .. 47 .. 183 296				
A 96	519	Empyema				
A 97	(a) 517 (b) 520 (c) 522 (d) 525 (e) 523 (f) 526 (g) 511-516 } 524 } 517 }	Abscess of lung Pleurisy Other diseases of upper respiratory tract Spontaneous pneumothorax Pulmonary congestion and hypostasis Other chronic interstitial pneumonia Pneumoconiosis Bronchiectasis	1 .. 1 .. 228 .. 1 .. 1 .. 4 .. 1	1 .. 1 .. 132 1	4 .. 4 .. 107	6 .. 4 .. 467
		All other respiratory diseases	1,150 ..	827 ..	1,096 ..	3,073 ..
IX.—DISEASES OF THE DIGESTIVE SYSTEM						
A 98	(a) 530 (b) 531-535	Dental caries 2,440 .. 1,943 .. 4,430 8,813 (a) Gingivitis 124 .. 104 .. 100 328 (b) Pyorrhoea 251 .. 205 .. 45 501 (c) Other diseases of teeth and supporting structures 158 .. 114 .. 69 341				
		<i>Carried forward</i> ..	165,348 ..	125,576 ..	224,129 ..	515,053 ..

TABLE 7—(cont.)
OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	165,348	125,576	224,129	515,053
IX.—DISEASES OF THE DIGESTIVE SYSTEM—(cont.)						
A 99	540	Ulcer of stomach	5	7	..	12
A 100	541	Ulcer of duodenum	4,267	4,210	935	9,412
A 101	543	Gastritis and duodenitis	2	..	1	3
A 102	550-553	Appendicitis	1	..	3	4
A 103	(a) 560	Hernia of abdominal cavity without mention of obstruction	1	..	..	1
	(b) 561	Hernia of abdominal cavity with obstruction .. .. ..	..	..	2,504	2,504
	(c) 570	(a) Intussusception	3,332	2,507	3,321	9,160
		(b) Volvulus	1	1	..	2
		(c) Other intestinal obstruction	4	..	..	4
A 104	(a) 571.0	Gastro-enteritis and colitis between 4 weeks and 2 years	1	..	..	1
	(b) 571.1	Gastro-enteritis and colitis, ages 2 years and over .. .. ..	..	..	1,981	1,981
	(c) 572	Chronic enteritis and ulcerative colitis	726	895	3,602	3,602
A 105	(a) 581.0	Cirrhosis of liver without mention of alcoholism	7	6	49	62
	(b) 581.1	Cirrhosis of liver with alcoholism	7	8	1	16
A 106	(a) 584	Cholelithiasis .. ..	..	2	..	2
	(b) 585	Cholecystitis without mention of calculi .. ..	..	..	..	..
A 107	(a) 536	Stomatitis	1	..	2	3
	(b) 538	Other diseases of buccal cavity	726	895	1,981	1,981
	(c) 539	(a) Functional disorders of oesophagus	7	8	1	16
	(d) 544	(b) Stricture or obstruction of oesophagus	1,908	1,834	2,086	5,828
	(e) 545	Disorders of function of stomach	216	300	354	870
	(f) 573	Other diseases of stomach and duodenum	13,816	8,136	8,050	30,002
		(a) Constipation .. .. ..	..	..	..	..
		(b) Other functional disorders of intestines	693	455	691	1,839
	(g) 574	Anal fissure and fistula .. .. ..	..	..	..	..
	(h) 575	Abscess of anal and rectal regions .. ..	..	..	..	..
	(i) 576	Peritonitis .. .. ..	..	..	..	..
	(j) 578	Other diseases of intestines and peritoneum	1	..	2	3
	(k) 580	(a) Acute yellow atrophy of liver .. .. ..	..	..	..	..
		(b) Degeneration of liver	45	22	..	67
		(c) Hepatitis	29	17	8	54
	(l) 583	Other diseases of liver .. .. ..	..	..	..	..
	(m) 586	Other diseases of gall-bladder and biliary ducts	3	..	2	5
	(n) 587	Diseases of pancreas .. .. ..	..	..	..	..
	(o) 537, 542 } 577, 582 }	Other diseases of digestive system	2,011	2,011	1,780	5,802
X.—DISEASES OF THE GENITO-URINARY SYSTEM						
A 108	590	Acute nephritis	37	20	21	78
A 109	(a) 591	Nephritis with oedema, including nephrosis	1	..	..	1
	(b) 592	Chronic nephritis	75	49	5	129
	(c) 593	Nephritis not specified as acute or chronic	192	131	58	381
	(d) 594	Other renal sclerosis .. .. ..	..	..	..	..
A 110	600	Infections of kidney	6	6	..	12
A 111	(a) 602	Calculi of kidney and ureter .. ..	..	..	..	..
	(b) 604	Calculi of other parts of urinary system	1	1	..	2
A 112	610	Hyperplasia of prostate .. .. ..	..	..	..	..
A 113	620-621	Diseases of breast .. .. ..	..	..	..	..
A 114	(a) 603	Other diseases of kidney and ureter	185	139	17	341
	(b) 605	Cystitis	88	39	17	144
	(c) 606	Other diseases of bladder	4	..	1	5
	(d) 608	Stricture of urethra	58	34	12	104
		<i>Carried forward</i> ..	193,071	146,409	246,028	585,508

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	193,071	146,409	246,028	585,508
X.—DISEASES OF THE GENITO-URINARY SYSTEM—(cont.)						
(c)	609	Other diseases of urethra	99	35	14	148
(f)	612	Other diseases of prostate	5	..	..	5
(g)	613	Hydrocele	1	..	..	1
(h)	614	Orchitis and epididymitis	28	..	1	29
(i)	617	Other diseases of male genital organs	3	..	1	4
(j)	622	Acute salpingitis and oophoritis .. ..	..	..	..	..
(k)	625	Other diseases of ovary and fallopian tube .. ..	..	..	..	..
(l)	626	Diseases of parametrium and pelviperitoneum (female) .. .. ..	..	..	..	..
(m)	630	Infective disease of uterus, vagina and vulva .. .. ..	..	..	..	..
(n)	633	Other diseases of uterus .. .. ..	..	6	..	6
(o)	634	Disorders of menstruation .. .. ..	..	435	..	435
(p)	637	Other diseases of female genital organs .. ..	..	12	..	12
(q)	601					
	607, 611	All other diseases of the genito-urinary system	35	10	2	47
	615-616					
	623-624					
	631-632					
	635-636					
XI.—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILD-BIRTH AND THE Puerperium						
A 115	(a)	Pyelitis and pyelonephritis of pregnancy ..	..	..	..	..
	(b)	Other infections of genito-urinary tract during pregnancy .. .. ..	..	..	..	..
	(c)	Sepsis of childbirth and the puerperium ..	..	..	..	..
	(d)	Puerperal phlebitis and thrombosis ..	..	..	..	..
	(e)	Puerperal pulmonary embolism .. ..	..	..	..	..
A 116	(a)	(a) Albuminuria of pregnancy .. ..	..	..	5	..
	(b)	(b) Eclampsia of pregnancy .. ..	..	..	..	..
	(c)	(c) Hyperemesis gravidarum .. ..	..	..	..	..
	(d)	(d) Acute yellow atrophy of liver .. ..	..	..	..	..
	(e)	(e) Other toxæmias of pregnancy .. ..	..	..	..	..
	(b)	Abortion with toxæmia, without mention of sepsis .. .. ..	..	..	..	..
	(c)	Puerperal eclampsia .. .. ..	..	..	..	..
	(d)	Other forms of puerperal toxæmia .. ..	..	..	..	..
A 117	(a)	Placenta praevia .. .. ..	..	..	..	..
	(b)	Other haemorrhage of pregnancy .. ..	..	..	..	..
	(c)	Delivery complicated by placenta praevia or antepartum haemorrhage .. ..	..	..	..	..
	(d)	Delivery complicated by retained placenta .. ..	..	..	..	..
	(e)	Delivery complicated by other postpartum haemorrhage .. ..	..	..	..	..
A 118		Abortion without mention of sepsis or toxæmia .. .. ..	..	..	3	..
A 119		Abortion with sepsis .. .. ..	..	..	..	..
A 120	(a)	Ectopic pregnancy .. .. ..	..	..	1,071	..
	(b)	Anæmia of pregnancy .. .. ..	..	..	..	1,071
	(c)	Pyrexia of unknown origin during the puerperium .. .. ..	..	..	1	..
	(d)	Puerperal psychoses .. .. ..	..	..	..	1
	(e)	Mastitis and other disorders of lactation .. ..	..	..	5	..
	(f)	647-649				
		673-680				
		687				
		688.0				
	(g)	688.2-688.3				
		Delivery without complications .. ..	..	..	139	..
		<i>Carried forward</i> ..	193,242	148,144	246,046	587,432

TABLE 7—(cont.)
OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	193,242	148,144	246,046	587,432
		XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE AND				
		XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT				
A 121	(a) 690	Boil and carbuncle	1,942	985	2,792	5,719
	(b) 691-693	Cellulitis and abscess	1,582	962	2,296	4,840
	(c) 694-698	Other infections of skin and subcutaneous tissue	8,371	4,402	13,713	26,486
A 122	(a) 720	Acute arthritis due to pyogenic organisms	17	7	..	24
	(b) 721	Acute nonpyogenic arthritis	34	42	..	76
	(c) 722	Rheumatoid arthritis and allied conditions	1,561	1,126	125	2,812
	(d) 723-725	Arthritis specified and unspecified	3,092	2,185	60	5,337
A 123	(a) 726	Muscular rheumastism	4,744	3,191	26	7,961
	(b) 727	Rheumatism unspecified	14	11	..	25
A 124	730	Osteomyelitis and periostitis	9	5	..	14
A 125	(a) 737	Ankylosis of joint	49	25	10	84
	(b) 745-749	Other acquired musculoskeletal deformities	9,664	5,345	11,860	26,869
A 126	(a) 715	Chronic ulcer of skin (including tropical ulcer)	19,670	12,418	23,603	55,691
	(b) 700-714	All other diseases of skin	716	..	..	..
	(c) 731-736	All other diseases of musculoskeletal system	738-744	..	..	..
		XIV.—CONGENITAL MALFORMATIONS	1,148	672	400	2,220
A 127	751	Spina bifida and meningocele				
A 128	754	Congenital malformations of circulatory system				
A 129	(a) 750	Monstrosity				
	(b) 752	Congenital hydrocephalus				
	(c) 753	Other congenital malformations of nervous system and sense organs				
	(d) 755	Cleft palate and harelip				
	(e) 756	(a) Congenital hypertrophic pyloric stenosis				
		(b) Imperforate anus				
		(c) Other congenital malformations of digestive system				
	(f) 757	Congenital malformations of genito-urinary system				
	(g) 758	Congenital malformations of bone and joint				
	(h) 759	Other and unspecified congenital malformations, not elsewhere classified				
		XV.—CERTAIN DISEASES OF EARLY INFANCY				
A 130	(a) 760	Intracranial and spinal injury at birth ..				
	(b) 761	Other birth injury				
A 131	762	Postnatal asphyxia and atelectasis ..				
A 132	(a) 764	Diarrhoea of newborn .. ..	..	..	261	261
	(b) 765	Ophthalmia neonatorum .. ..	..	..	8	8
	(c) 763	Pneumonia of newborn .. ..	..	..
	(d) 766	Pemphigus neonatorum .. ..	..	..
	(e) 767	Umbilical sepsis .. ..	..	..	86	86
	(f) 768	Other sepsis of newborn .. ..	..	..	3	3
A 133	770	Haemolytic disease of newborn				
		<i>Carried forward</i> ..	245,139	179,520	301,289	725,948

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	245,139	179,520	301,289	725,948
		XV.—CERTAIN DISEASES OF EARLY INFANCY—(cont.)				
A 134	769	All other defined diseases of early infancy ..	..	..	4	4
A 135	771-772	Congenital debility .. .. ..	..	..	11	11
(a)	773	Premature birth				
(b)	774	Other ill-defined diseases peculiar to early infancy and immaturity unqualified ..	..	..	8	8
(c)	775-776					
		XVI.—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS				
A 136	794	Senility without mention of psychoses ..	2,368	1,812	..	4,180
A 137	780	Infantile convulsions .. ..	..	..	6	6
(a)	788.8	Pyrexia of unknown origin	4,386	3,055	3,237	10,678
(b)	793	Observation, without need for further medical care				
(d)	781-787					
	789-792	(a) Malingering	15	11	..	26
	795					
	788.1-788.7	(b) Sudden death (cause unknown) ..				
	788.9	(c) Found dead (cause unknown) ..				
		(d) Other ill-defined and unknown causes of morbidity and mortality	2,457	1,927	939	5,323
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE				
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)				
AE 138	E 810-E 835	Motor vehicle accidents	2	..	1	3
AE 139	E 800-E 802	Railway accidents				
(a)	E 850-E 858	Water transport accidents				
(b)	E 860-E 866	Aircraft accidents				
(c)	E 840-E 845	Other transport accidents	185	113	299	597
AE 140	E 870	Accidental poisoning by morphia and other opium derivatives				
(a)	E 874	Accidental poisoning by other analgesic and soporific drugs				
(b)	E 878	Accidental poisoning by other and unspecified drugs				
(c)	E 883	Accidental poisoning by corrosive aromatics, acids and caustic alkalies ..				
(d)	E 884	Accidental poisoning by mercury and its compounds				
(e)	E 885	Accidental poisoning by lead and its compounds				
(f)	E 886	Accidental poisoning by arsenic and antimony and their compounds				
(g)	E 888	Accidental poisoning by other and unspecified solid or liquid substances				
(h)	E 890-E 895	Accidental poisoning by gases and vapours				
(i)	E 871-E 873					
(j)	E 875-E 877					
	E 879-E 882	Other accidental poisoning				
	E 887					
AE 141	E 900-E 904	Accidental falls	2,907	1,460	2,952	7,319
AE 142	E 912	Accident caused by machinery	27	14	12	53
		<i>Carried forward</i> ..	257,486	187,912	308,758	754,156

TABLE 7—(cont.)
OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Intermediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	257,486	187,912	308,758	754,156
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
AE 143	E 916	Accident caused by fire and explosion of combustible material	34	25	75	134
AE 144	E 917-E 918	Accident caused by hot substance, corrosive liquid, steam and radiation	124	150	245	519
AE 145	E 919	Accident caused by firearm	6	3	5	14
AE 146	E 929	Accidental drowning and submersion				
AE 147 (a)	E 913	Accidents caused by cutting or piercing instruments	5,758	3,136	5,260	14,154
(b)	E 914	Accidents caused by electric current				
(c)	E 920	Foreign body entering eye and adnexa	1	3	1	5
(d)	E 923	Foreign body entering other orifice	1	..	..	1
(e)	E 925	Accidental mechanical suffocation				
(f)	E 926	Lack of care of infants under 1 year of age				
(g)	E 927	Accidents caused by bites and stings of venomous animals and insects	325	208	256	789
(h)	E 928	Other accidents caused by animals	17	12	33	62
(i)	E 931	Excessive heat				
(j)	E 932	Excessive cold				
(k)	E 933	Hunger, thirst and exposure				
(l)	E 934	Cataclysm				
(m)	E 935	Lightning				
(n)	E 936	(a) Accidents in mines and quarries (b) Agricultural and forestry accidents (c) Accidental injury by crushing or landslide	20	12	16	48
(o)	E 940	(d) Other and unspecified accidents	394	161	305	860
(p)	E 941-E 942	Generalized vaccinia following vaccination	4	21	134	159
(q)	E950-E953 } E955-E959 }	Other complications of smallpox vaccination .. .. ..	..	..	7	7
(r)	E 954	Accidents due to medical or surgical intervention				
(s)	E910-E911 } E 915	Anaesthetic accidents				
	E921-E922 } E924-E930 }	All other accidental causes	563	186	1,190	1,939
AE 148 (a)	E 970	Suicide and self-inflicted injury by analgesic and soporific substances	22	5	10	37
(b)	E 971	Suicide and self-inflicted injury by other solid and liquid substances				
(c)	E 972	Suicide and self-inflicted injury by gases in domestic use				
(d)	E 973	Suicide and self-inflicted injury by other gases				
(e)	E 974	Suicide and self-inflicted injury by hanging or strangulation				
(f)	E 975	Suicide and self-inflicted injury by submersion (drowning)				
(g)	E 976	Suicide and self-inflicted injury by firearms and explosives				
(h)	E 977	Suicide and self-inflicted injury by cutting or piercing instruments				
(i)	E 978	Suicide and self-inflicted injury by jumping from high place				
(j)	E 979	Suicide and self-inflicted injury by other and unspecified means				
AE 149 (a)	E 980	Nonaccidental poisoning by another person				
		<i>Carried forward</i> ..	264,755	191,834	316,295	772,884

TABLE 7—(cont.)

OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)

RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Inter- mediate list Number	Detailed list Number	Cause Groups—(Diseases)	New Cases All Nationalities (including Europeans)			
			Adult Males	Adult Females	Children under 10 years	Total
		<i>Brought forward</i> ..	264,755	191,834	316,295	772,884
		XVII.—ACCIDENTS, POISONINGS AND VIOLENCE—(cont.)				
		“E” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSES)—(cont.)				
AE 150	(b) E 981	Assault by firearms and explosive ..				
	(c) E 982	Assault by cutting or piercing instruments ..	5	3	2	10
	(d) E 983	Assault by other means				
	(e) E 984	Injury by intervention of police				
	(f) E 985	Execution (legal)				
	E 990-E 999	Injury resulting from operations of war ..				
		“N” CODE: ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS, AND VIOLENCE (NATURE OF INJURY)				
AN 138	N 800-N 804	Fracture of skull				
AN 139	N 805-N 809	Fracture of spine and trunk				
AN 140	N 810-N 829	Fracture of limbs	5	..	..	5
AN 141	N 830-N 839	Dislocation without fracture	6	..	..	6
AN 142	N 840-N 848	Sprains and strains of joints and adjacent muscles	1,897	720	683	3,300
AN 143	N 850-N 856	Head injury excluding fracture				
AN 144	N 860-N 869	Internal injury of chest, abdomen and pelvis		3	2	5
AN 145	N 870-N 908	Laceration and open wounds	1,403	472	920	2,795
AN 146	N 910-N 929	Superficial injury, contusion and crushing with intact skin surface	994	387	906	2,287
AN 147	N 930-N 936	Effects of foreign body entering through orifice	13	6	32	51
AN 148	N 940-N 949	Burns	306	296	586	1,188
AN 149	N 960-N 979	Effects of poisons .. .. ..	..	1	..	1
AN 150	N 950-N 959 N 980-N 999 }	All other and unspecified effects of external causes	393	317	412	1,122
		TOTAL ..	269,777	194,039	319,838	783,654

TABLE 7—(cont.)
 OUT-PATIENTS (TRAVELLING DISPENSARIES)—(cont.)
 RETURN OF DISEASES FOR THE YEAR 1954—(cont.)

Nationalities	New Cases All Nationalities (including Europeans)			
	Adult Males	Adult Females	Children under 10 years	Total (A)
Europeans ..	—	—	—	—
Eurasians ..	39	14	18	71
Chinese ..	61,399	51,289	76,193	188,881
Indians ..	18,848	12,880	18,166	49,894
Malays ..	168,323	117,650	204,848	490,821
Javanese ..	11,930	6,286	12,771	30,987
Japanese ..	—	—	—	—
Others ..	9,238	5,920	7,842	23,000
	TOTAL ..	269,777	194,039	783,654

TABLE 8
DENTAL—SUMMARY OF WORK DONE FOR THE YEAR 1954

State/ Settlement	Attendances	EXTRACTIONS		FILLINGS			Scalings	Dentures
		Temporary teeth	Permanent teeth	Amalgam	Silicate	Inlay		
Kedah	25,672	5,631	16,917	3,824	1,454	14	11	867
Perlis	2,742	204	1,552	364	268	—	—	6
Penang	25,116	8,133	16,494	1,380	708	103	4	119
Perak	34,371	13,497	20,262	7,532	1,639	22	6	723
Selangor	27,642	6,790	13,215	8,868	1,363	1	16	875
Negri Sembilan	26,458	6,374	11,390	8,382	1,109	16	8	1,859
Malacca	16,022	811	6,115	2,759	1,273	31	15	1,019
Johore	38,802	12,916	17,549	11,172	1,394	26	33	605
Kelantan	9,641	1,775	6,057	3,757	989	27	11	325
Trengganu	11,985	1,780	9,748	2,504	898	72	—	300
Pahang	21,056	6,051	7,848	7,609	2,187	1	1	615
Federal Institution, North	2,576	80	2,788	1,069	193	12	—	239
Federal Institution, South	5,350	229	2,653	1,139	393	29	11	296
Dental Nurses Training School, Penang	13,961	1,591	1,263	11,198	—	—	—	448
Dental Nurses in the Field	101,916	53,290	6,058	73,590	—	—	—	—
Total	363,310	119,152	139,909	145,147	13,868	354	116	15,182
								4,405

TABLE 9
MICROSCOPICAL EXAMINATION OF BLOOD FILMS
FOR THE YEAR 1954

State/Settlement	Number of patients examined	NUMBER POSITIVE FOR MALARIAL PARASITES				Total number of examinations of blood films
		S.T.	B.T.	Quartan	Mixed infection	
Kedah	24,241	805	520	3	8	25,017
Perlis	11,198	494	654	—	10	11,747
Penang	15,660	423	322	8	28	16,766
Perak	55,174	1,021	669	9	27	82,474
Selangor	46,487	1,119	922	6	12	79,463
Negri Sembilan ..	20,648	744	296	9	26	23,457
Malacca	12,298	354	96	—	3	13,461
Johore	18,371	320	182	9	68	23,872
Kelantan	6,928	640	269	10	6	7,825
Trengganu	2,953	179	137	18	31	2,953
Pahang	20,615	1,187	235	—	29	31,095
Total ..	234,573	7,286	4,302	72	248	318,130

TABLE 10
MICROSCOPICAL EXAMINATION OF FÆCES FOR
WORM INFECTIONS—1954

State/Settlement	Number of patients examined	Number positive for entamoeba histolytica	NUMBER POSITIVE FOR OVA			Total number of examinations
			Ascaris lumbricoides	Ankylostoma duodenale	Mixed infection	
Kedah	18,381	204	7,484	2,395	983	18,979
Perlis	3,778	16	1,125	170	118	3,795
Penang	13,847	87	3,618	2,473	1,057	17,066
Perak	49,047	256	6,500	2,234	1,307	66,814
Selangor	39,484	163	8,338	2,603	1,586	47,409
Negri Sembilan ..	7,838	74	1,805	822	262	10,694
Malacca	22,892	67	1,409	1,706	3,689	16,372
Johore	15,428	128	5,924	1,398	1,271	16,120
Kelantan	2,775	58	464	159	1,013	2,946
Trengganu	3,594	53	535	441	490	3,594
Pahang	10,776	74	2,316	223	279	14,296
Total ..	187,840	1,180	39,518	14,624	12,055	218,085

TABLE 11
POST MORTEM EXAMINATIONS—1954

	State/Settlement						Medico-legal	Clinical	
Kedah	227	..	21
Perlis	24	..	—
Penang	225	..	30
Perak	632	..	40
Selangor	505	..	95
Negri Sembilan	177	..	68
Malacca	108	..	30
Johore	527	..	195
Kelantan	88	..	—
Trengganu	17	..	1
Pahang	217	..	2
						Total ..	<u>2,747</u>	..	<u>482</u>

TABLE 12

RETURN OF VENEREAL DISEASES FOR THE YEAR 1954

A.—NEW CASES

Nationalities	SYPHILIS			Gon- orrhoea	Chan- croid	Lympho- gran.	Comb. infecc.	Non- venr.	TOTAL	
	Prim.	Sec.	Tert.						M.	F.
Chinese	64	814	181	37	1,835	234	31	39	706	3,941
	F.	17	359	91	65	214	5	1	19	962
Indians	M.	79	450	162	19	1,105	278	38	52	586
	F.	17	306	70	25	83	6	—	4	489
Malays	M.	70	553	157	11	1,692	75	19	37	369
	F.	27	289	73	27	253	4	1	23	578
Europeans	M.	4	—	—	—	47	3	1	—	28
	F.	—	—	—	—	—	—	—	—	35
Others	M.	1	13	5	—	53	9	1	—	44
	F.	—	24	2	—	3	—	—	4	31
Total	M.	218	1,830	505	67	4,732	599	90	128	1,733
	F.	61	978	236	117	553	15	2	50	2,095
										4,107
										GRAND TOTAL ..
										14,009

TABLE 12—(cont.)

RETURN OF VENEREAL DISEASES FOR THE YEAR 1954—(cont.)

B.—RE-ATTENDANCES

Nationalities	SYPHILIS				Lympho- gran.	Chan- croid	Gon- orrhoea	Congen.	Comb. infec.	Non- venrl.	TOTAL	
	Prim.	Sec.	Tert.	Congen.							M.	F.
Chinese	M.	313	5,927	2,752	385	2,811	1,049	94	204	1,172	14,707	—
	F.	65	4,677	1,050	844	782	4	—	189	1,888	—	9,499
Indians	M.	402	3,651	2,054	107	1,898	1,203	70	226	1,199	10,810	—
	F.	59	3,068	880	328	211	40	—	12	1,086	—	5,684
Malays	M.	268	8,498	1,518	38	1,795	165	28	202	1,194	13,706	—
	F.	60	2,430	682	283	307	4	—	73	1,143	—	4,982
Europeans	M.	2	—	—	—	39	9	1	—	51	102	—
	F.	—	—	—	—	—	—	—	—	13	—	13
Others	M.	1	99	61	—	49	13	—	—	23	246	—
	F.	—	152	46	2	5	—	—	16	81	—	302
Total	M.	986	18,175	6,385	530	6,592	2,439	193	632	3,639	39,571	—
	F.	184	10,327	2,658	1,457	1,305	48	—	290	4,211	—	20,480
GRAND TOTAL ..											60,051	—

TABLE 12—(cont.)

RETURN OF VENEREAL DISEASES FOR THE YEAR 1954—(cont.)

C.—ANALYSIS OF COMBINED INFECTIONS—NEW CASES ONLY

	CHINESE						INDIANS						MALAYS						EUROPEANS						OTHERS						TOTAL					
	M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.		F.					
With Syphilis	34	19	50	4	37	23	—	—	—	—	—	—	—	—	—	—	4	121	50														
With Gonorrhoea	36	19	50	4	37	23	—	—	—	—	—	—	—	—	—	—	4	123	50														
With Chancroid	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—												
With Lymphogranuloma	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—												

TABLE 13

SUMMARY OF CHILD WELFARE CENTRES—1954

State/Settlement	Permanent Centres	Subsidiary Centres	MEDICAL OFFICERS		HEALTH		Dispensers or Hospital Assistants	Midwives	Others			
			Men	Women	Sisters	Nurses						
Kedah	5	57	—	4	14	—	45			
Perlis	2	—	—	—	1	4 (P.T.)	6 (K.B.)			
Penang	34	—	5	2	15	3	26			
Perak	9	—	—	7	19	1	53 (K.B.)			
Selangor	9	48	—	2	27	6	47			
Negri Sembilan	9	34	—	1	7 (P.T. 1)	10	5 (P.T.)			
Malacca	12	—	—	1	7	1	11 (A.N.)			
Johore	5	64	—	3 (P.T. 1)	8	1	10			
Kelantan	2	5	1 (P.T.)	1 (P.T.)	—	2	36			
Trengganu	5	—	1	1 (P.T.)	3	—	—			
Pahang	8	193	—	—	2	4	—			
Total	..		100	401	3 (P.T. 1)	14 (P.T. 3)	43 (P.T. 1)	109	27 (P.T. 9)			
									286 (K.B. 95)			
									1 (D.N.) 3 (A.N.)			

P.T.—Part Time. K.B.—Kampong Bidans. D.N.—Dental Nurse.

A.N.—Assistant Nurse.

TABLE 14
SUMMARY OF DISPENSARIES, 1954

State/ Settlement	Total number	Fixed	TRAVELLING		Medical Officers	HEALTH		Dispensers or Hospital Assistants	Midwives	Others
			Road and River	Sisters		Nurses				
Kedah ..	19	14	5	—	—	—	—	20	—	—
Perlis ..	7	6	1	—	—	—	—	7	—	—
Penang ..	17	14	3	3	—	—	—	12	—	1 (D.N.)
Perak ..	45	29	16	—	1	—	—	3	—	—
Selangor ..	46	37	9	5	—	—	—	38	—	—
Negri Sembilan ..	15	10	5	—	—	—	—	—	30	—
Malacca ..	15	10	5	—	—	—	—	—	—	—
Johore ..	34	21	13	12	—	—	—	16	—	—
Kelantan ..	9	6	3	—	—	—	—	19	—	—
Trengganu ..	13	8	5	2 (P.T. 1)	—	—	—	—	9	2
Pahang ..	27	17	10	2	—	—	—	—	17	—
Total ..	247	172	75	32 (P.T. 6)	11	12	219	—	2	1 (D.N.)

P.T.—Part Time. D.N.—Dental Nurse.